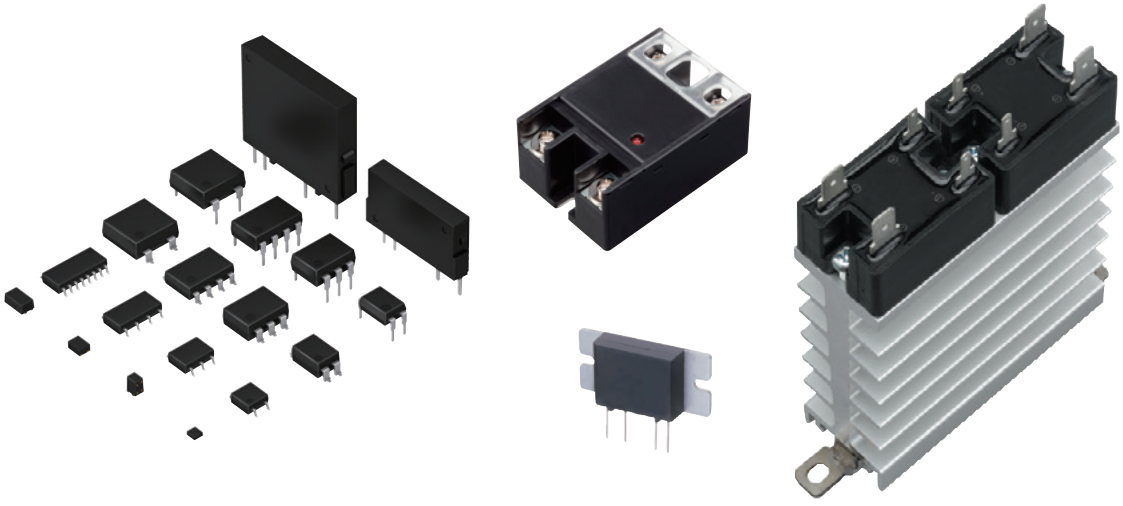
Panasonic
INDUSTRY

PhotoMOS®
Phototriac Coupler
Solid State Relays

SELECTION GUIDE

IN Better Solution



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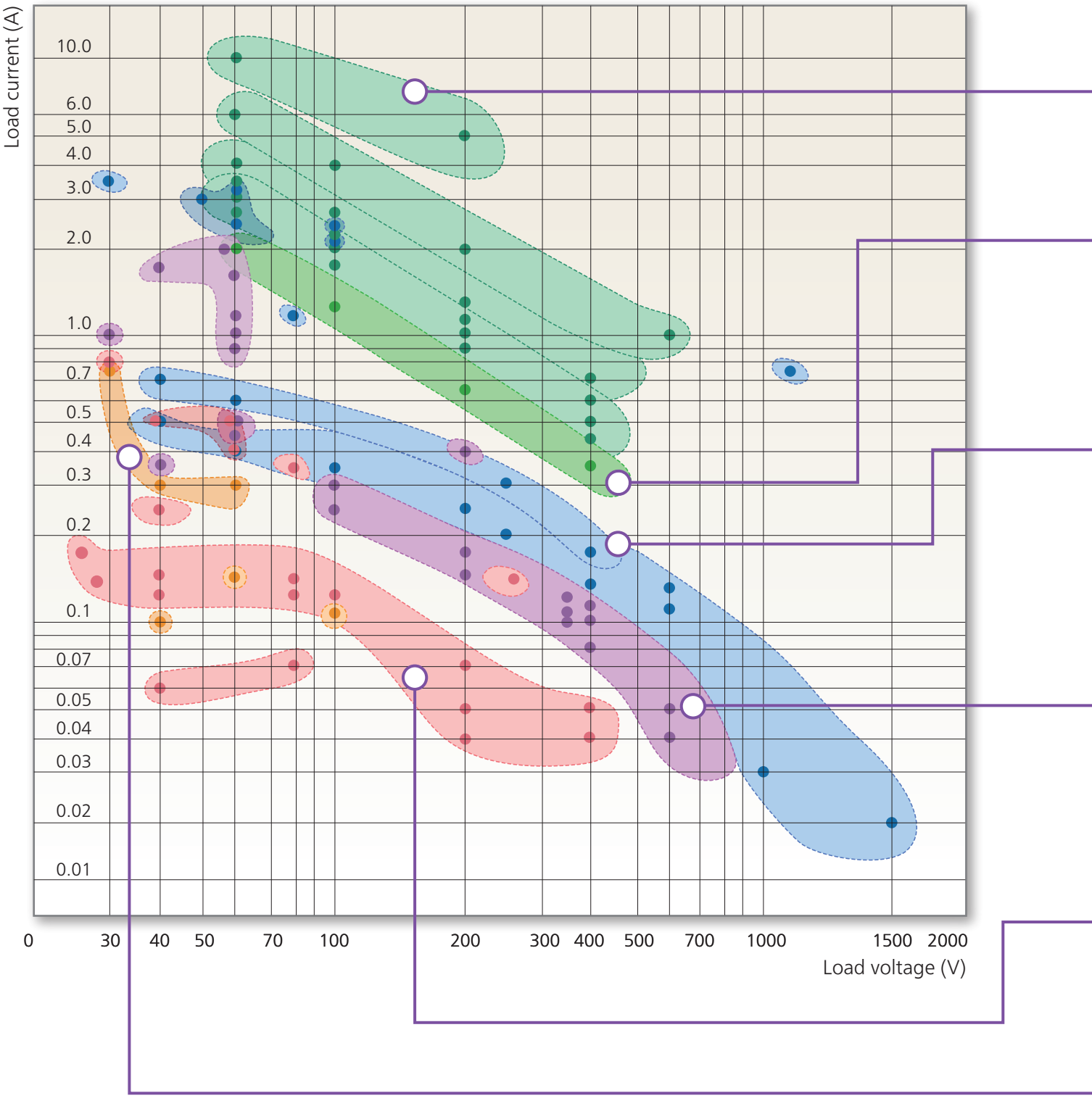
PhotoMOS®

Global leading company by offering a great lineup.



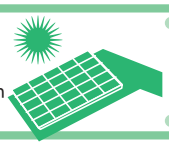
*About automotive applications | If you are considering to use PhotoMOS® for automotive applications, please contact our sales representive.

PhotoMOS® support various core industries

Slim & Power
- Power type (High Capacity)
- Power type (DC only)
- Power type (AC/DC dual use)

Flat & Power
- PD type

- Energy management
- Photovoltaic power generation
- Storage battery



- Robots
- Machine tools
- Industrial machines

Low on-resistance
- HF type (DC only)
- HF type (AC/DC dual use)

Low on-resistance & Easy use
- HE type

- Office equipment
- Industrial machines
- Measuring instruments

General use
- GU type

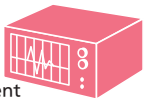
General & Easy use
- GE type

High sensitivity
- HS type

- Game machines
- Security systems
- Data communications

Low on-resistance & Low output capacitance
- RF type

- Data communications
- Measuring instruments
- Medical equipment



Low current consumption & Guaranteed performance at high temperature
- CC type

- Probe cards
- Measuring instruments

- **PD** : Power DIP
- **HF** : High Functioned
- **HE** : High functioned and Easy use
- **RF** : Radio Frequency
- **GU** : General Use
- **GE** : General & Easy use
- **HS** : High Sensitivity
- **CC** : Capacitor Coupled

PhotoMOS® Quick Reference

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	WSSOP	TSON	VSSOP	SON	SSOP	SOP4	SOP6
1a	20	0.18			2.8					AQY221N5TY		AQY221N5VY		
	25	0.15			5.5					AQY221N3TY	AQY221N3MY	AQY221N3VY		
	30	0.75			0.2				AQY2C1R6PX					
		0.8			0.18					AQY221R6TY				
		1			0.18							AQY221R6VY		
		1			0.25									
		3.5	4.0	6.0	0.035	0.018	0.01							
	40	0.1			10.5				AQY2C1R3PX					
		0.12			9.5					AQY221N2TY	AQY221N2MY	AQY221N2VY	AQY221N2S	
		0.25			0.75 ~ 0.8					AQY221R2TY	AQY221R2MY	AQY221R2VY	AQY221R2S	
		0.3			0.8				AQY2C1R2PX					
		0.35			0.75			AQY231R1WY						
		0.5			0.55							AQY221R4VY		
		0.5	0.7	1.0	0.6	0.3	0.15							
		0.7			0.3									
		1.6			0.1								AQY211G2S	
	50	3	3.5	6.0	0.04	0.025	0.01							AQV252G2S
	60	0.3			0.9				AQY2C2R2PX					
		0.4			0.8					AQY222R2TY		AQY222R2VY		
		0.4	0.6	0.8	0.74	0.37	0.18							
		0.5			0.55									
		0.5			0.83								AQY212S AQY222R1S AQY232S	
		0.5	0.65	0.80	0.83	0.44	0.25							AQV212S
		0.55			0.85									
		0.55	0.65	0.80	0.83	0.44	0.25							
		0.6			0.37									
		0.8			0.4								AQY282GS	
		1			0.34								AQY212GS	
		1.1			0.34									
		1.25			0.2								AQY212G2S	
		1.8			0.08								AQY212G3HS	
		2			0.07 ~ 0.11								AQY232G3HS	
		2.5	3.5	5.0	0.08	0.04	0.02							
		2.7			0.066									
		3			0.11									
		3.3	3.5	6.6	0.033	0.017	0.0095							AQV252G3S
		3.5	5.0	7.0	0.033	0.017	0.0095							
		3.6			0.033									
		4			0.05									
		6			0.015									
		10			0.008									
	80	0.12			10.5							AQY225R2VY		
		0.15			10.5								AQY225R2S	
		0.35			0.8								AQY225R1S	
		1.25	1.75	2.5	0.09	0.05	0.03							AQV255GS

* DC load type

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	SOP8	SOP16	DIP4	DIP6	DIP8	PowerDIP4	SIL4
1a	20	0.18			2.8									
	25	0.15			5.5									
	30	0.75			0.2									
		0.8			0.18									
		1			0.18									
		1			0.25					AQY211EH				
		3.5	4.0	6.0	0.035	0.018	0.01				AQV251G			
	40	0.1			10.5									
		0.12			9.5									
		0.25			0.75 ~ 0.8									
		0.3			0.8									
		0.35			0.75									
		0.5			0.55									
		0.5	0.7	1.0	0.6	0.3	0.15				AQV251 AQV201			
		0.7			0.3						AQV101*			
		1.6			0.1									
	50	3	3.5	6.0	0.04	0.025	0.01							
	60	0.3			0.9									
		0.4			0.8									
		0.4	0.6	0.8	0.74	0.37	0.18				AQV252 AQV202			
		0.5			0.55						AQV112KL*			
		0.5			0.83									
		0.5	0.65	0.80	0.83	0.44	0.25							
		0.55			0.85					AQY212EH				
		0.55	0.65	0.80	0.83	0.44	0.25				AQV212			
		0.6			0.37						AQV102*			
		0.8			0.4									
		1			0.34									
		1.1			0.34					AQY212GH				
		1.25			0.2									
		1.8			0.08									
		2			0.07 ~ 0.11								AQY272	
		2.5	3.5	5.0	0.08	0.04	0.02				AQV252G			
		2.7			0.066									AQZ202D
		3			0.11									AQZ202
		3.3	3.5	6.6	0.033	0.017	0.0095							
		3.5	5.0	7.0	0.033	0.017	0.0095				AQV252G3			
		3.6			0.033									AQZ102D*
		4			0.05									AQZ102*
		6			0.015									AQZ202G
		10			0.008									AQZ192*
	80	0.12			10.5									
		0.15			10.5									
		0.35			0.8									
		1.25	1.75	2.5	0.09	0.05	0.03							

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	WSSOP	TSON	VSSOP	SON	SSOP	SOP4	SOP6
1a	100	0.12			8.8 ～ 9				AQY2C5R3PX	AQY225R3TY		AQY225R3VY		
		0.25			2.3								AQY215S	
		0.3	0.4	0.56	2.3	1.15	0.6							AQV215S
		0.32	0.42	0.60	2.3	1.15	0.6							
		0.35	0.45	0.70	1.8	0.9	0.45							
		1.3			0.23									
		1.8			0.18									
		2			0.23									
		2.2	2.4	4.4	0.07	0.035	0.02							AQV255G3S
		2.3			0.09									
		2.4	3.2	4.8	0.07	0.035	0.02							
		2.6			0.081									
		4			0.035									
	200	0.05	0.06	0.08	30	16	8							AQV227NS
		0.07	0.08	0.10	30	16	8							
		0.16	0.20	0.28	11	5.5	2.8							AQV217S
		0.18	0.22	0.30	11	5.5	2.8							
		0.25	0.35	0.50	2.6	1.4	0.7							
		0.4			1.8								AQY217GS	
		0.65			0.7									
		0.9			0.64									
		1			0.7									
		1.1			0.33									
		1.3			0.34									
		2			0.18									
		5			0.031									
	250	0.2	0.3	0.4	5.5	2.7	1.4							
		0.3			2.7									
	350	0.12			17 ～ 20								AQY210S AQY210LS AQY230S	
		0.12			23.5								AQY210KS	
		0.12	0.13	0.15	23	11.5	6.0							AQV210S
		0.13			18									
		0.13	0.15	0.17	23	11.5	6.0							
	400	0.04	0.05	0.06	70	55	28							AQV224NS
		0.05	0.06	0.08	70	55	28							
		0.1			25 ～ 27								AQY214S AQY234S	
		0.10	0.11	0.12	30	22.5	11.3							AQV214S
		0.12			26									
		0.12	0.13	0.15	30	22.5	11.3							
		0.15	0.18	0.25	12.4	6.2	3.1							
		0.18			6.3									
		0.35			2.1									
		0.45			2.4									
		0.5			2.1									
		0.6			1.23									
		0.7			1.06									

* DC load type

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	SOP8	SOP16	DIP4	DIP6	DIP8	PowerDIP4	SIL4
1a	100	0.12			8.8 ～ 9									
		0.25			2.3									
		0.3	0.4	0.56	2.3	1.15	0.6							
		0.32	0.42	0.60	2.3	1.15	0.6				AQV215			
		0.35	0.45	0.70	1.8	0.9	0.45				AQV255			
		1.3			0.23								AQY275	
		1.8			0.18									AQZ205D
		2			0.23									AQZ205
		2.2	2.4	4.4	0.07	0.035	0.02							
		2.3			0.09									AQZ105D※
		2.4	3.2	4.8	0.07	0.035	0.02				AQV255G3			
		2.6			0.081									AQZ105※
		4			0.035									AQZ205G
	200	0.05	0.06	0.08	30	16	8							
		0.07	0.08	0.10	30	16	8				AQV227N			
		0.16	0.20	0.28	11	5.5	2.8							
		0.18	0.22	0.30	11	5.5	2.8				AQV217			
		0.25	0.35	0.50	2.6	1.4	0.7				AQV257			
		0.4			1.8									
		0.65			0.7								AQY277	
		0.9			0.64									AQZ207D
		1			0.7									AQZ207
		1.1			0.33									AQZ107D※
		1.3			0.34									AQZ107※
		2			0.18									AQZ207G
		5			0.031									AQZ197※
	250	0.2	0.3	0.4	5.5	2.7	1.4				AQV253 AQV253H AQV203			
		0.3			2.7						AQV103※			
	350	0.12			17 ～ 20					AQY210HL				
		0.12			23.5									
		0.12	0.13	0.15	23	11.5	6.0							
		0.13			18					AQY210EH				
		0.13	0.15	0.17	23	11.5	6.0				AQV210 AQV210EH			
	400	0.04	0.05	0.06	70	55	28							
		0.05	0.06	0.08	70	55	28				AQV224N			
		0.1			25 ～ 27									
		0.10	0.11	0.12	30	22.5	11.3							
		0.12			26					AQY214EH				
		0.12	0.13	0.15	30	22.5	11.3				AQV214 AQV214EH AQV214H AQV234			
		0.15	0.18	0.25	12.4	6.2	3.1				AQV204 AQV254 AQV254H			
		0.18			6.3						AQV104*			
		0.35			2.1								AQY274	
		0.45			2.4									AQZ204D
		0.5			2.1									AQZ204
		0.6			1.23									AQZ104D*
		0.7			1.06									AQZ104*

PhotoMOS® Quick Reference

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	WSSOP	TSON	VSSOP	SON	SSOP	SOP4	SOP6
1a	600	0.04	0.05	0.06	70	55	28							AQV216S
		0.05			52									
		0.05	0.06	0.08	70	55	28							
		0.13	0.14	0.16	20	15	7.5							
		0.15			8							AQY206GV		
		1			0.52									
	1000	0.03	0.04	0.05	85	60	30							
	1200	0.75	0.9	1.4	1	0.5	0.25							
	1500	0.02	0.025	0.04	345	345	160							
		0.02			315									
2a	60	0.4			0.83									
		0.5			0.83									
	100	0.3			2.3									
	200	0.04			30									
		0.05			30									
		0.16			11									
	250	0.14			11									
	350	0.1			16									
		0.12			18～23									
	400	0.04			70									
		0.08			30									
		0.1			26～30									
		0.12			10.2									
	600	0.04			52									
		0.04			70									
4a	40	0.06			9.5									
		0.16			0.8									
	80	0.07			10.5									
1b	60	0.15			4				AQY4C2PX					
		0.5			1								AQY412S	
		0.55			1									
		0.55	0.65	0.80	1	0.55	0.3							
	250	0.2	0.3	0.4	5.5	2.7	1.4							
	350	0.12			18								AQY410S	
		0.13			18									
		0.13	0.15	0.17	18	13	6.5							
	400	0.1			26								AQY414S	
		0.10	0.11	0.12	26	20	10							AQV414S
		0.12			25.2									
		0.12	0.13	0.15	26	20	10							
		0.12	0.13	0.15	25.2	19	10							
		0.15	0.18	0.25	10.5	6.3	3.1							
		0.5			2.8									
2b	400	0.08			26									
		0.1			26									
		0.12			11									
1a1b	60	0.45			1									
		0.5			1									
	350	0.1			18									
		0.12			18									
	400	0.1			26～27									
		0.12			11									

* DC load type

Output configuration	Load voltage (V)	Continuous load current (A)			On resistance Typ. (Ω)			Package						
		A	B	C	A	B	C	SOP8	SOP16	DIP4	DIP6	DIP8	PowerDIP4	SIL4
1a	600	0.04	0.05	0.06	70	55	28							
		0.05			52					AQY216EH				
		0.05	0.06	0.08	70	55	28				AQV216			
		0.13	0.14	0.16	20	15	7.5				AQV256H			
		0.15			8									
		1			0.52									AQZ206G2
	1000	0.03	0.04	0.05	85	60	30				AQV259			
	1200	0.75	0.9	1.4	1	0.5	0.25				AQV209G			
	1500	0.02	0.025	0.04	345	345	160				AQV258			
		0.02			315						AQV258H5			
2a	60	0.4			0.83			AQW212S						
		0.5			0.83							AQW212 AQW212EH		
	100	0.3			2.3							AQW215		
	200	0.04			30			AQW227NS						
		0.05			30							AQW227N		
		0.16			11							AQW217		
	250	0.14			11			AQW223R2S						
	350	0.1			16			AQW210S						
		0.12			18～ 23							AQW210 AQW210EH		
	400	0.04			70							AQW224N		
		0.08			30			AQW214S				AQW214 AQW214EH		
		0.1			26～30							AQW254		
		0.12			10.2							AQW216EH		
	600	0.04			52							AQW216		
		0.04			70									
4a	40	0.06			9.5				AQS221N2S					
		0.16			0.8				AQS221R2S				AQY274	
	80	0.07			10.5				AQS225R2S					
1b	60	0.15			4									
		0.5			1									
		0.55			1					AQY412EH				
		0.55	0.65	0.80	1	0.55	0.3				AQV412EH			
	250	0.2	0.3	0.4	5.5	2.7	1.4				AQV453			
	350	0.12			18									
		0.13			18					AQY410EH				
		0.13	0.15	0.17	18	13	6.5				AQV410EH			
	400	0.1			26									
		0.10	0.11	0.12	26	20	10							
		0.12			25.2					AQY414EH				
		0.12	0.13	0.15	26	20	10				AQV414			
		0.12	0.13	0.15	25.2	19	10				AQV414EH			
		0.15	0.18	0.25	10.5	6.3	3.1				AQV454 AQV454H			
		0.5			2.8									AQZ404
2b	400	0.08			26			AQW414S						
		0.1			26							AQW414 AQW414EH		
		0.12			11							AQW454		
1a1b	60	0.45			1			AQW612S						
		0.5			1							AQW612EH		
	350	0.1			18			AQW610S						
		0.12			18							AQW610EH		
	400	0.1			26～ 27							AQW614 AQW614EH		
		0.12			11							AQW654		

PhotoMOS® Part No. System

Channel configuration

- S : 4 channels (16–pin)
- Y : 1 channel (4–pin)
- V : 1 channel (6–pin)
- Z : 1 channel (SIL4–pin)
- W : 2 channels (8–pin)

Type

- 0 : HF type Low on–resistance Power type Slim and power
- 1/8 : GU type Wide variation GE type General and Easy use
- 2 : RF type Low on–resistance and low output capacitance
- 3 : HS type High sensitivity
- 5 : HE type Low on–resistance and Easy use
- 7 : PD type Flat and power
- 9 : Power High Capacity type Slim and power
- C : CC type Capacitor coupled isolation type

Output configuration

- 1 : 1 Form A (DC)
- 2 : 1 Form A (AC/DC) 2 Form A (AC/DC)
- 4 : 1 Form B (AC/DC) 2 Form B (AC/DC)
- 6 : 1 Form A & 1 Form B (AC/DC)

A = Normally open B = Normally closed

Load voltage

- 0 : 350 V
- 1 : up to 40 V
- 2 : 50 to 60 V
- 3 : 250 V
- 4 : 400 V
- 5 : 80 to 100 V
- 6 : 600 V
- 7 : 200 V
- 8 : 1,500 V
- 9 : 1,000 V

AQ Y 2 2 1 D E H L V Y

Driving method

- Nil : Current-sensitive CC type
- D : Power type voltage-sensitive

Feature

- Nil : Standard
- E : Easy use
- G/G* : High capacity
- N : Low on-resistance
- N* : Low C × R (Low Cout type)
- R* : Low C × R (Low Ron type)

I/O isolation voltage

- Nil : Standard
- H/H* : High insulation (DIP: 5,000 V, SOP: 3,750 V)

A number is entered in the " * " part.
Valid only for combinations of products listed in the catalog (see "TYPES" in this catalog).
Please contact our sales representative regarding combinations with products not listed in this catalog.

Current limit function

- Nil : Non
- K : With short circuit protection (Latching)
- KL : With short circuit protection (Non–latching)
- L : With current limiting

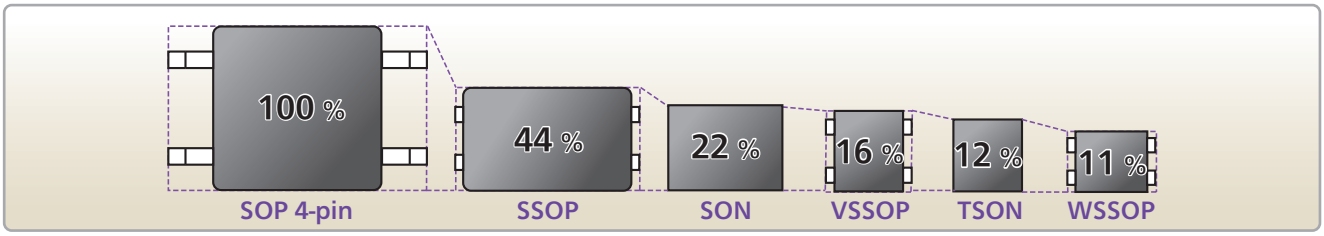
Package

- Nil : DIP (Through hole terminal)
- A : DIP (Surface mount terminal)
- M : SON
- S : SOP
- T : VSSOP
- V : SSOP
- P : TSON
- W : WSSOP

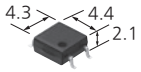
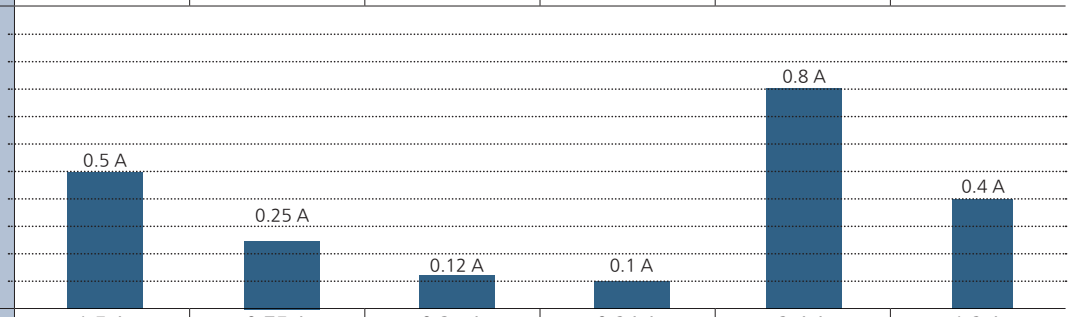
Packing style

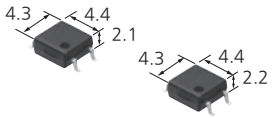
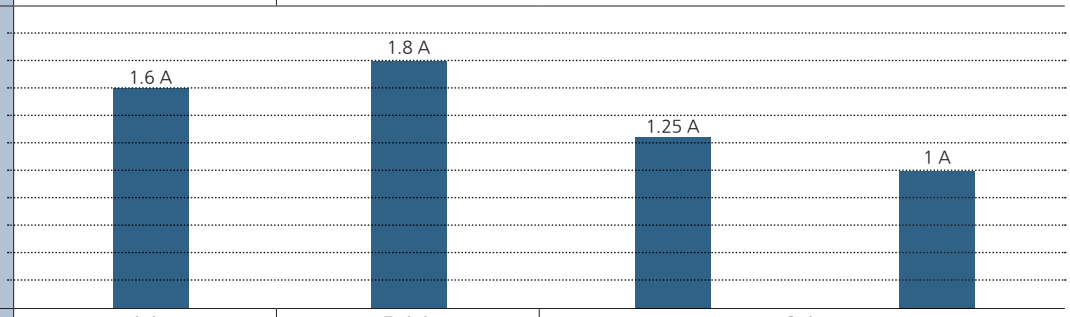
- Nil : Tube (DIP/SOP/SIL)
- X : Tape and reel (DIP/SOP: 1,000 pcs., TSON: 3,500 pcs.)
- 1X : Tape and reel (TSON: 1,000 pcs.)
- Y : Tape and reel (VSSOP: 1,000 pcs., WSSOP/SSOP/SON: 3,500 pcs.)
- 1Y : Tape and reel (WSSOP/SSOP/SON: 1,000 pcs.)

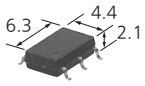
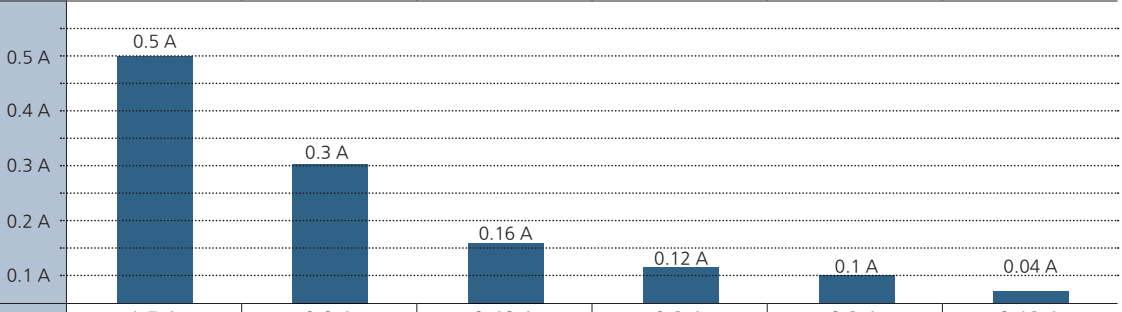
Package size (Comparison with SOP 4-pin)

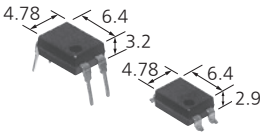
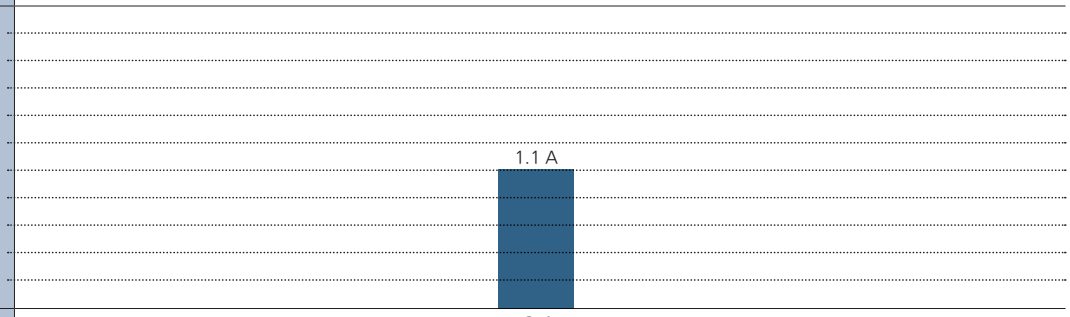


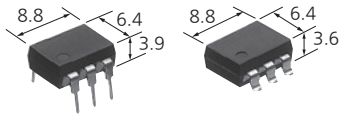
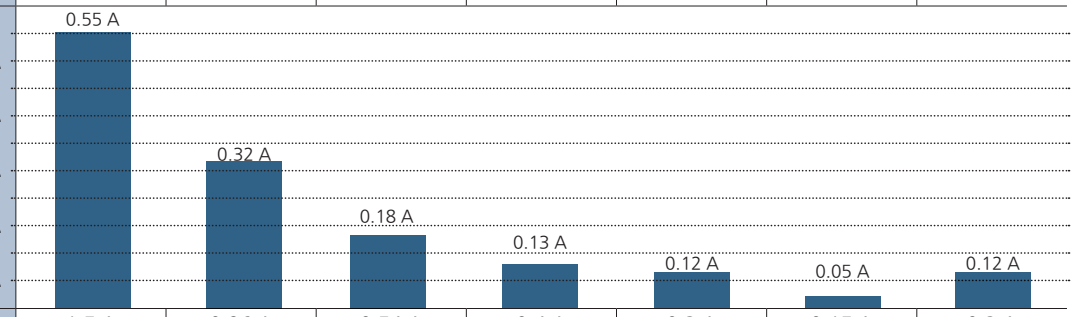
PhotoMOS® Selector Chart

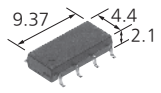
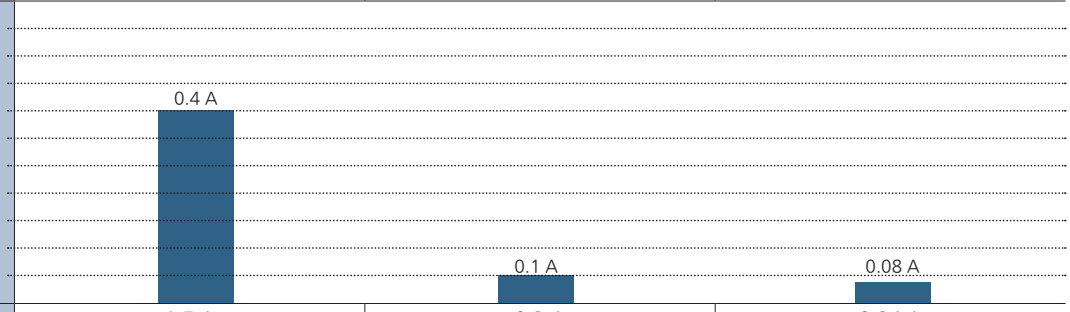
Product name			GU SOP					
Contact configuration			1 Form A					
Number of terminals			4–pin					
Number of terminals *Standoff height included								
Features			Miniature SOP4–pin type for switching low–level analog signal					
Part No.			AQY212S	AQY215S	AQY210S	AQY214S	AQY282GS	AQY217GS
Output	Load type		AC/DC					
	Load voltage	Peak AC	60 V	100 V	350 V	400 V	60 V	200 V
		DC	60 V	100 V	350 V	400 V	60 V	200 V
	Continuous load current							
	Peak load current		1.5 A	0.75 A	0.3 A	0.24 A	2.4 A	1.2 A
	Power dissipation		300 mW					400 mW
	On resistance	Typ.	0.83 Ω	2.3 Ω	17 Ω	25 Ω	0.4 Ω	1.8 Ω
		Max.	2.5 Ω	4 Ω	25 Ω	35 Ω	0.8 Ω	2.5 Ω
	Output capacitance (Typ.)		80 pF	140 pF	45 pF		65 pF	85 pF
	Off state leakage current (Max.)		1 μA					
Input	LED forward current		50 mA					
	LED reverse voltage		5 V					
	Peak forward current		1 A					
	Power dissipation		75 mW					
	LED operate current	Typ.	0.9 mA				1.1 mA	0.75 mA
		Max.	3 mA					
	LED turn off current	Min.	0.4 mA				0.2 mA	
		Typ.	0.85 mA				1 m A	0.7 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)				1.32 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V					
Turn on time		Typ.	0.65 ms	0.6 ms	0.23 ms	0.21 ms	1 ms	1.2 ms
		Max.	2 ms		0.5 ms		5 ms	
Turn off time		Typ.	0.08 ms		0.04 ms		0.1 ms	0.03 ms
		Max.	0.2 ms		0.2 ms		0.5 ms	0.2 ms
Total Power dissipation			350 mW					450 mW
I/O isolation voltage			1,500 Vrms					
I/O capacitance		Typ.	—					0.8 pF
		Max.	1.5 pF					
Initial I/O isolation resistance (Min.)			1,000 MΩ					
Safety standards			UL, VDE				UL	UL, VDE
Mass (weight) (approx.)			0.084 g					

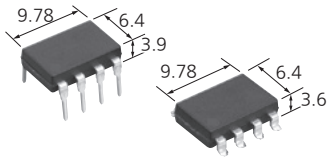
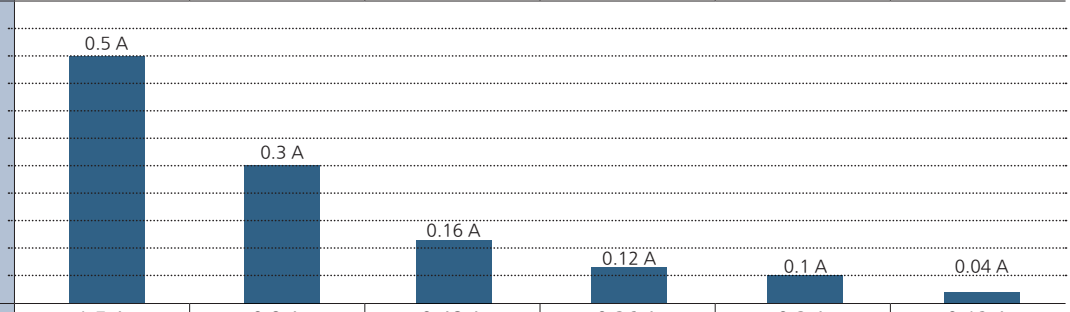
Product name			GU SOP			
Contact configuration			1 Form A			
Number of terminals			4–pin			
Number of terminals *Standoff height included						
Features			Miniature SOP4–pin type with high capacity up to Max. 1.8 A in the series			
Part No.			AQY211G2S	AQY212G3HS	AQY212G2S	AQY212GS
Output	Load type		AC/DC			
	Load voltage	Peak AC	40 V	60 V		
		DC	40 V	60 V		
	Continuous load current					
	Peak load current		4 A	5.4 A	3 A	
	Power dissipation		400 mW	480 mW	400 mW	
	On resistance	Typ.	0.1 Ω	0.08 Ω	0.2 Ω	0.34 Ω
		Max.	0.15 Ω	0.15 Ω	0.5 Ω	0.7 Ω
	Output capacitance (Typ.)		180 pF	230 pF	150 pF	220 pF
	Off state leakage current (Max.)		1 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	0.9 mA	1 mA	1.1 mA	
		Max.	3 mA			
	LED turn off current	Min.	0.2 mA		0.3 mA	
		Typ.	0.8 mA	0.9 mA	1 mA	
	LED dropout voltage	Typ.	1.32 V (1.14 V at I_F = 5 mA)			
		Max.	1.5 V			
Turn on time		Typ.	1 ms	2.2 ms	1.3 ms	
		Max.	3 ms	7.5 ms	5 ms	
Turn off time		Typ.	0.12 ms	0.1 ms		
		Max.	0.5 ms			
Total Power dissipation			450 mW	530 mW	450 mW	
I/O isolation voltage			1,500 Vrms	3,750 Vrms	1,500 Vrms	
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE	—	UL, VDE	
Mass (weight) (approx.)			0.084 g	0.09 g	0.084 g	

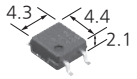
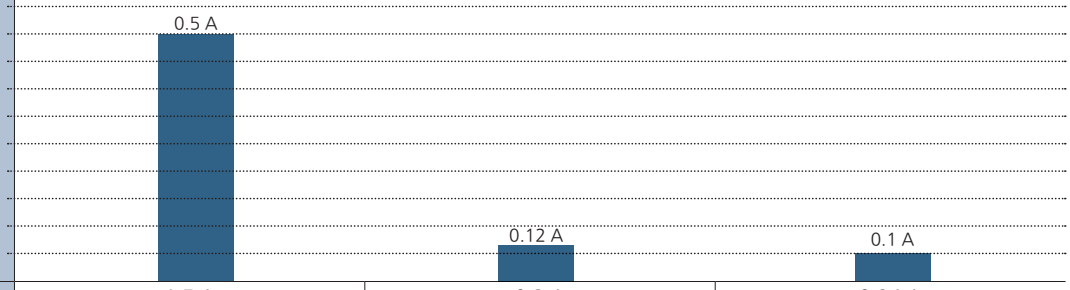
Product name			GU SOP					
Contact configuration			1 Form A					
Number of terminals			6–pin					
Number of terminals *Standoff height included								
Features			Miniature SOP6–pin type of 60 to 600 V load voltage					
Part No.			AQV212S	AQV215S	AQV217S	AQV210S	AQV214S	AQV216S
Output	Load type		AC/DC					
	Load voltage	Peak AC	60 V	100 V	200 V	350 V	400 V	600 V
		DC	60 V	100 V	200 V	350 V	400 V	600 V
	Continuous load current *6–pin type: in case of A connection							
	Peak load current		1.5 A	0.9 A	0.48 A	0.3 A	0.3 A	0.12 A
	Power dissipation		450mW					
	On resistance *6–pin type: in case of A connection	Typ.	0.83 Ω	2.3 Ω	11 Ω	23 Ω	30 Ω	70 Ω
		Max.	2.5 Ω	4 Ω	15 Ω	35 Ω	50 Ω	120 Ω
	Output capacitance (Typ.)		80 pF	110 pF	70 pF	45 pF		
	Off state leakage current (Max.)		1 μA					
Input	LED forward current		50 mA					
	LED reverse voltage		5 V					
	Peak forward current		1 A					
	Power dissipation		75 mW					
	LED operate current	Typ.	0.7 mA					
		Max.	3 mA					
	LED turn off current	Min.	0.4 mA					
		Typ.	0.65 mA					
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)					
		Max.	1.5 V					
Turn on time		Typ.	0.65 ms	0.6 ms	0.25ms	0.25 ms		0.28 ms
		Max.	2 ms	2 ms	1 ms	0.5 ms		0.5 ms
Turn off time		Typ.	0.08 ms	0.06 ms	0.05 ms			0.04 ms
		Max.	0.2 ms	0.2 ms	0.2 ms			0.2 ms
Total Power dissipation			500 mW					
I/O isolation voltage			1,500 Vrms					
I/O capacitance		Typ.	0.8 pF					
		Max.	1.5 pF					
Initial I/O isolation resistance (Min.)			1,000 MΩ					
Safety standards			UL					
Mass (weight) (approx.)			0.125 g					

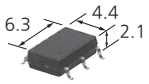
Product name			GU DIP
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			4–pin high capacity of 1.1 A, I/O isolation voltage of 5,000 Vrms
Part No.			AQY212GH
Output	Load type		AC/DC
	Load voltage	Peak AC	60 V
		DC	60 V
	Continuous load current		
	Peak load current		3 A
	Power dissipation		500 mW
	On resistance	Typ.	0.34 Ω
		Max.	0.7 Ω
	Output capacitance (Typ.)		220 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.1 mA
		Max.	3 mA
	LED turn off current	Min.	0.3 mA
		Typ.	1 mA
	LED dropout voltage	Typ.	1.32 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	1.3 ms
		Max.	5 ms
Turn off time		Typ.	0.1 ms
		Max.	0.5 ms
Total Power dissipation			550 mW
I/O isolation voltage			5,000 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.19 g

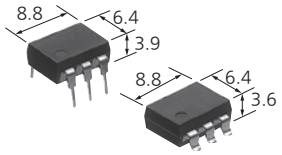
Product name			GU DIP						
Contact configuration			1 Form A						
Number of terminals			6–pin						
Number of terminals *Standoff height included									
Features			6–pin type for switching low–level analog signal						
Part No.			AQV212	AQV215	AQV217	AQV210	AQV214	AQV216	AQV214H
Output	Load type		AC/DC						
	Load voltage	Peak AC	60 V	100 V	200 V	350 V	400 V	600 V	400 V
		DC	60 V	100 V	200 V	350 V	400 V	600 V	400 V
	Continuous load current *6–pin type: in case of A connection								
	Peak load current		1.5 A	0.96 A	0.54 A	0.4 A	0.3 A	0.15 A	0.3 A
	Power dissipation		500 mW						
	On resistance *6–pin type: in case of A connection	Typ.	0.83 Ω	2.3 Ω	11 Ω	23 Ω	30 Ω	70 Ω	30 Ω
		Max.	2.5 Ω	4 Ω	15 Ω	35 Ω	50 Ω	120 Ω	50 Ω
	Output capacitance (Typ.)		80 pF	110 pF	70 pF	45 pF			
	Off state leakage current (Max.)		1 μA						
Input	LED forward current		50 mA						
	LED reverse voltage		5 V						
	Peak forward current		1 A						
	Power dissipation		75 mW						
	LED operate current	Typ.	1 mA						1.3 mA
		Max.	3 mA						3 mA
	LED turn off current	Min.	0.4 mA						0.4 mA
		Typ.	0.79 mA						1.2 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)						
		Max.	1.5 V						
Turn on time		Typ.	0.65 ms	0.6 ms	0.25 ms	0.25 ms	0.21 ms	0.28 ms	0.6 ms
		Max.	2 ms	2 ms	1 ms	0.5 ms	0.5 ms	0.5 ms	0.8 ms
Turn off time		Typ.	0.08 ms	0.06 ms	0.05 ms	0.05 ms	0.05 ms	0.04 ms	0.05 ms
		Max.	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms
Total Power dissipation			550 mW						
I/O isolation voltage			1,500 Vrms						5,000 Vrms
I/O capacitance		Typ.	0.8 pF						
		Max.	1.5 pF						
Initial I/O isolation resistance (Min.)			1,000 MΩ						
Safety standards			UL						UL, VDE
Mass (weight) (approx.)			0.453 g						

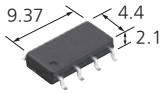
Product name			GU SOP		
Contact configuration			2 Form A		
Number of terminals			8–pin		
Number of terminals *Standoff height included					
Features			Miniature SOP8–pin type of 60 V/350 V/400 V load voltage		
Part No.			AQW212S	AQW210S	AQW214S
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	350 V	400 V
		DC	60 V	350 V	400 V
	Continuous load current				
	Peak load current		1.5 A	0.3 A	0.24 A
	Power dissipation		600 mW		
	On resistance	Typ.	0.83 Ω	16 Ω	30 Ω
		Max.	2.5 Ω	35 Ω	50 Ω
	Output capacitance (Typ.)		80 pF	45 pF	
	Off state leakage current (Max.)		1 μA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	0.9 mA		
		Max.	3 mA		
	LED turn off current	Min.	0.4 mA		
		Typ.	0.8 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	0.65 ms	0.23 ms	0.21 ms
		Max.	2 ms	0.5 ms	0.5 ms
Turn off time		Typ.	0.08 ms	0.04 ms	
		Max.	0.2 ms	0.2 ms	
Total Power dissipation			650 mW		
I/O isolation voltage			1,500 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL, VDE		
Mass (weight) (approx.)			0.195 g		

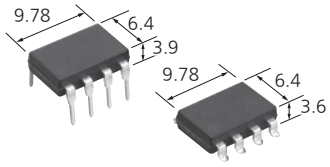
Product name			GU DIP					
Contact configuration			2 Form A					
Number of terminals			8–pin					
Number of terminals *Standoff height included								
Features			Compact DIP8–pin type of 60 V to 600 V load voltage					
Part No.			AQW212	AQW215	AQW217	AQW210	AQW214	AQW216
Output	Load type		AC/DC					
	Load voltage	Peak AC	60 V	100 V	200 V	350 V	400 V	600 V
		DC	60 V	100 V	200 V	350 V	400 V	600 V
	Continuous load current							
	Peak load current		1.5 A	0.9 A	0.48 A	0.36 A	0.3 A	0.12 A
	Power dissipation		800 mW					
	On resistance	Typ.	0.83 Ω	2.3 Ω	11 Ω	23 Ω	30 Ω	70 Ω
		Max.	2.5 Ω	4 Ω	15 Ω	35 Ω	50 Ω	120 Ω
	Output capacitance (Typ.)		80 pF	110 pF	70 pF	45 pF		
	Off state leakage current (Max.)		1 μA					
Input	LED forward current		50 mA					
	LED reverse voltage		5 V					
	Peak forward current		1 A					
	Power dissipation		75 mW					
	LED operate current	Typ.	0.9 mA					
		Max.	3 mA					
	LED turn off current	Min.	0.4 mA					
		Typ.	0.8 mA					
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)					
		Max.	1.5 V					
Turn on time		Typ.	0.65 ms	0.6 ms	0.25 ms	0.25 ms	0.31 ms	0.28 ms
		Max.	2 ms	2 ms	1 ms	0.5 ms	0.5 ms	0.5 ms
Turn off time		Typ.	0.08 ms	0.06 ms	0.05 ms			0.04 ms
		Max.	0.2 ms	0.2 ms	0.2 ms			0.2 ms
Total Power dissipation			850 mW					
I/O isolation voltage			1,500 Vrms					
I/O capacitance		Typ.	0.8 pF					
		Max.	1.5 pF					
Initial I/O isolation resistance (Min.)			1,000 MΩ					
Safety standards			UL					
Mass (weight) (approx.)			0.5 g					

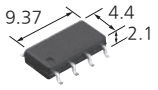
Product name			GU SOP		
Contact configuration			1 Form B		
Number of terminals			4–pin		
Number of terminals *Standoff height included					
Features			Normally closed SOP4–pin type of 60 V/350 V/400 V load voltage		
Part No.			AQY412S	AQY410S	AQY414S
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	350 V	400 V
		DC	60 V	350 V	400 V
	Continuous load current				
	Peak load current		1.5 A	0.3 A	0.24 A
	Power dissipation		300 mW		
	On resistance	Typ.	1 Ω	18 Ω	26 Ω
		Max.	2.5 Ω	25 Ω	35 Ω
	Output capacitance (Typ.)		500 pF	110 pF	100 pF
	Off state leakage current (Max.)		1 μA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	0.9 mA		
		Max.	3 mA		
	LED turn off current	Min.	0.4 mA		
		Typ.	0.85 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	0.9 ms	0.52 ms	0.47 ms
		Max.	3 ms	1 ms	1 ms
Turn off time		Typ.	0.21 ms	0.23 ms	0.28 ms
		Max.	1 ms	1 ms	1 ms
Total Power dissipation			350 mW		
I/O isolation voltage			1,500 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL, VDE		
Mass (weight) (approx.)			0.084 g		

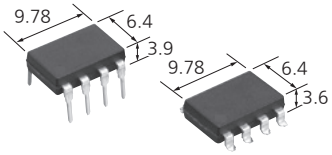
Product name			GU SOP
Contact configuration			1 Form B
Number of terminals			6–pin
Number of terminals *Standoff height included			
Features			Normally closed SOP6–pin type of 400 V load voltage
Part No.			AQV414S
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current *6–pin type: in case of A connection	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.1 A
	Peak load current		0.3 A
	Power dissipation		450 mW
	On resistance *6–pin type: in case of A connection	Typ.	26 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		100 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.6 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.55 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.47 ms
		Max.	1 ms
Turn off time		Typ.	0.28 ms
		Max.	1 ms
Total Power dissipation			500 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.125 g

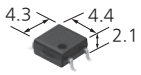
Product name			GU DIP
Contact configuration			1 Form B
Number of terminals			6–pin
Number of terminals *Standoff height included			
Features			Normally closed 6–pin type of 400 V load voltage
Part No.			AQV414
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current *6–pin type: in case of A connection	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.12 A
	Peak load current		0.3 A
	Power dissipation		500 mW
	On resistance *6–pin type: in case of A connection	Typ.	26 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		100 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.95 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.47 ms
		Max.	1 ms
Turn off time		Typ.	0.28 ms
		Max.	1 ms
Total Power dissipation			550 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.453 g

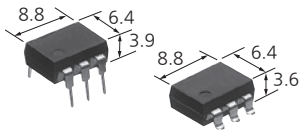
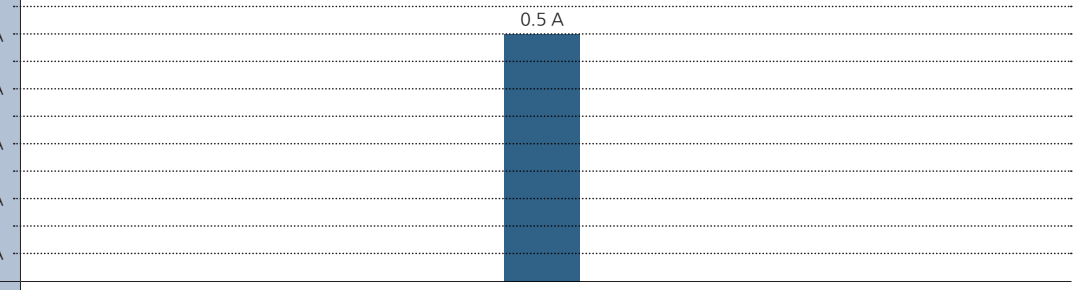
Product name			GU SOP
Contact configuration			2 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Normally closed SOP8–pin type of 400 V load voltage
Part No.			AQW414S
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.08 A
	Peak load current		0.24 A
	Power dissipation		600 mW
	On resistance	Typ.	26 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		100 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.9 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.8 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.43 ms
		Max.	1 ms
Turn off time		Typ.	0.3 ms
		Max.	1 ms
Total Power dissipation			650 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.195 g

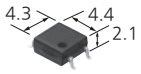
Product name			GU DIP
Contact configuration			2 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Normally closed DIP8–pin type of 400 V load voltage
Part No.			AQW414
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.1 A
	Peak load current		0.3 A
	Power dissipation		800 mW
	On resistance	Typ.	26 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		100 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.7 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.64 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.46 ms
		Max.	1 ms
Turn off time		Typ.	0.4 ms
		Max.	1 ms
Total Power dissipation			850 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.5 g

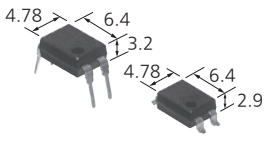
Product name			GU SOP	
Contact configuration			1 Form A & 1 Form B	
Number of terminals			8–pin	
Number of terminals *Standoff height included				
Features			Both N.O. and N.C. contacts incorporated in a small SOP8–pin package	
Part No.			AQW612S	AQW610S
Output	Load type		AC/DC	
	Load voltage	Peak AC	60 V	350 V
		DC	60 V	350 V
	Continuous load current			
	Peak load current		1.5 A	0.3 A
	Power dissipation		600 mW	
	On resistance	Typ.	1 Ω	18 Ω
		Max.	2.5 Ω	25 Ω
	Output capacitance (Typ.)		80 pF (N.O.) , 500 pF (N.C.)	45 pF (N.O.) , 100 pF (N.C.)
	Off state leakage current (Max.)		1 μA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.9 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	
		Typ.	0.8 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V	
Turn on time		Typ.	0.65 ms (N.O.) , 0.9 ms (N.C.)	0.28 ms (N.O.) , 0.52 ms (N.C.)
		Max.	3 ms	1 ms
Turn off time		Typ.	0.08 ms (N.O.) , 0.2 ms (N.C.)	0.04 ms (N.O.) , 0.23 ms (N.C.)
		Max.	1 ms	1 ms
Total Power dissipation			650 mW	
I/O isolation voltage			1,500 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL, VDE	
Mass (weight) (approx.)			0.195 g	

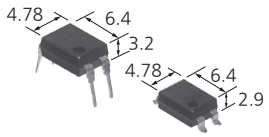
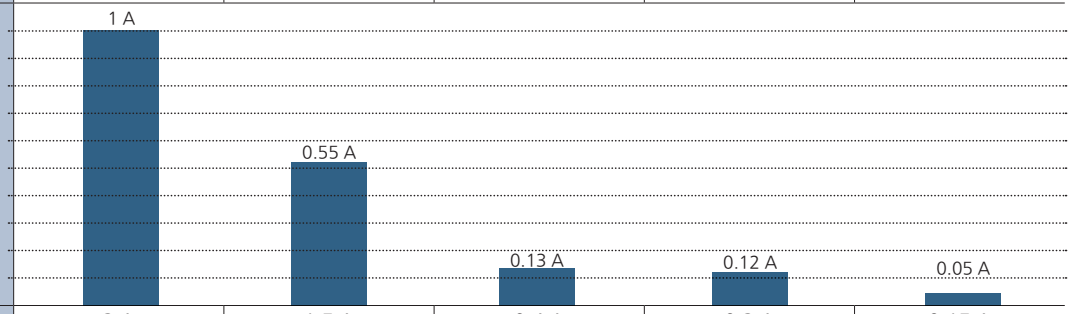
Product name			GU DIP
Contact configuration			1 Form A & 1 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Both N.O. and N.C. contacts incorporated in a DIP8–pin package
Part No.			AQW614
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.1 A
	Peak load current		0.3 A
	Power dissipation		800 mW
	On resistance	Typ.	27 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		45 pF (N.O.) , 100 pF (N.C.)
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.9 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.8 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.28 ms (N.O.) , 0.43 ms (N.C.)
		Max.	1 ms
Turn off time		Typ.	0.04 ms (N.O.) , 0.3 ms (N.C.)
		Max.	1 ms
Total Power dissipation			850 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.5 g

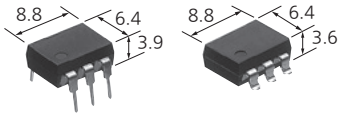
Product name			GU SOP Short Circuit Protection (Latch type)
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			Small SOP4–pin type with short circuit protecting (Latch type)
Part No.			AQY210KS
Output	Load type		AC/DC
	Load voltage	Peak AC	350 V
		DC	350 V
	Continuous load current	0.5 A 0.4 A 0.3 A 0.2 A 0.1 A	0.12 A
	Peak load current		0.2 A 〈 Cut off current (Typ.) 〉
	Power dissipation		400 mW
	On resistance	Typ.	23.5 Ω
		Max.	35 Ω
	Output capacitance (Typ.)		42 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.1 mA
		Max.	3 mA
	LED turn off current	Min.	0.3 mA
		Typ.	1 mA
	LED dropout voltage	Typ.	1.13 V (1.32 V at I_F = 50 mA)
		Max.	1.5 V
Turn on time		Typ.	0.7 ms
		Max.	2 ms
Turn off time		Typ.	0.07 ms
		Max.	1 ms
Total Power dissipation			450 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.084 g

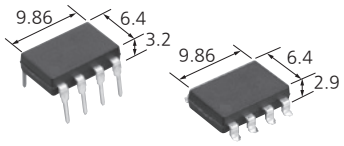
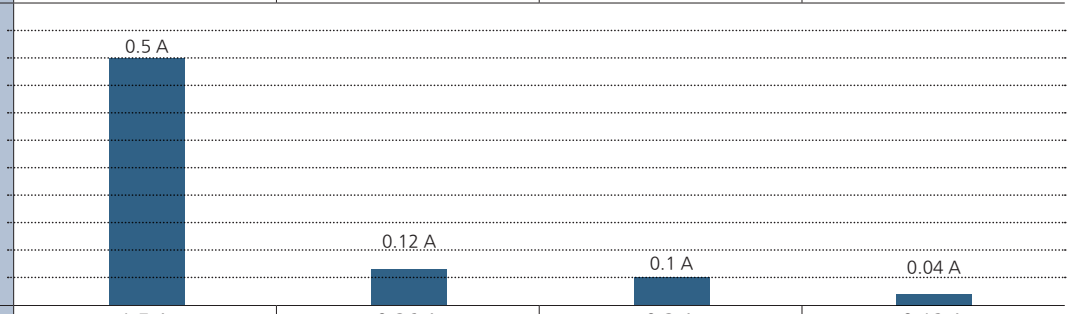
Product name			GU DIP Short Circuit Protection (Non–latch type)
Contact configuration			1 Form A
Number of terminals			6–pin
Number of terminals *Standoff height included			
Features			Short circuit protection (Non–latch type) only for DC load
Part No.			AQV112KL
Output	Load type		DC
	Load voltage	Peak AC	—
		DC	7 to 60 V
	Continuous load current *6–pin type: in case of A connection		
	Peak load current		—
	Power dissipation		500 mW
	On resistance *6–pin type: in case of A connection	Typ.	0.55 Ω
		Max.	2 Ω
	Output capacitance (Typ.)		300 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.8 mA
		Max.	10 mA
	LED turn off current	Min.	0.3 mA
		Typ.	0.7 mA
	LED dropout voltage	Typ.	1.17 V (1.35 V at I_F = 50 mA)
		Max.	1.5 V
Turn on time		Typ.	2 ms
		Max.	5 ms
Turn off time		Typ.	0.1 ms
		Max.	1 ms
Total Power dissipation			550 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.453 g

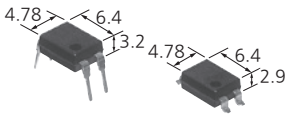
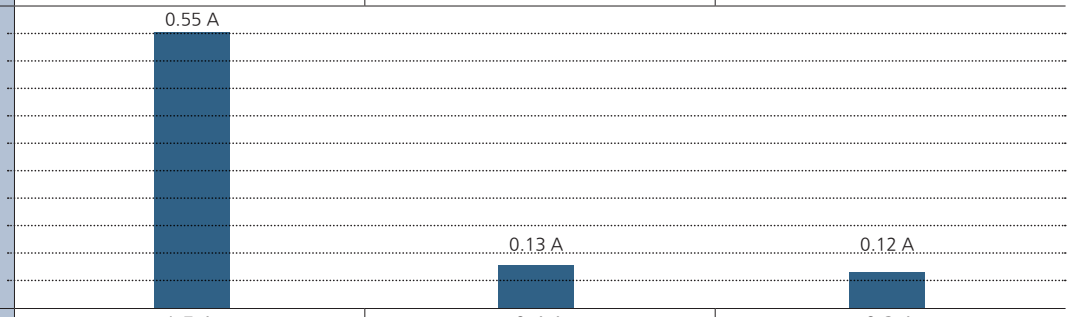
Product name			GU SOP Current Limiting
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			Miniature SOP4–pin type with current limiting
Part No.			AQY210LS
Output	Load type		AC/DC
	Load voltage	Peak AC	350 V
		DC	350 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.12 A	
		0.1 A	
	Peak load current		0.18 A 〈 Output Limit Current (Typ.) 〉
	Power dissipation		400 mW
	On resistance	Typ.	20 Ω
		Max.	25 Ω
	Output capacitance (Typ.)		45 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.2 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	1.1 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.5 ms
		Max.	2 ms
Turn off time		Typ.	0.08 ms
		Max.	1 ms
Total Power dissipation			450 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.084 g

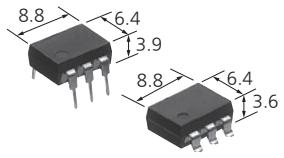
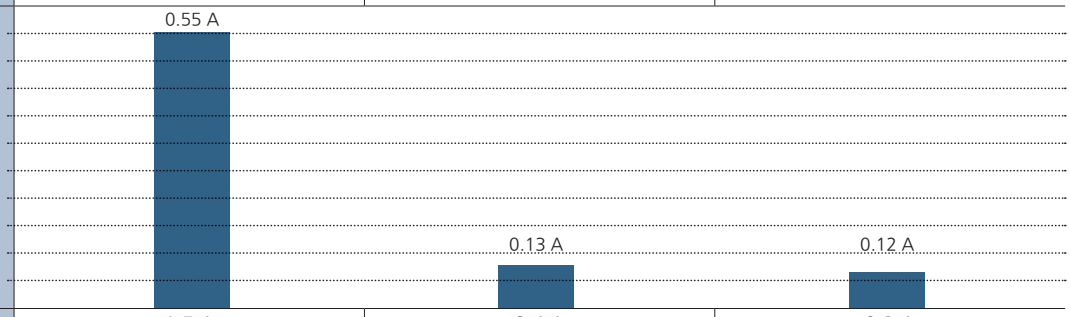
Product name			GU DIP Current Limiting
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			DIP4–pin type with current limiting and high insulation
Part No.			AQY210HL
Output	Load type		AC/DC
	Load voltage	Peak AC	350 V
		DC	350 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.12 A	
		0.1 A	
	Peak load current		0.18 A 〈 Output Limit Current (Typ.) 〉
	Power dissipation		500 mW
	On resistance	Typ.	20 Ω
		Max.	25 Ω
	Output capacitance (Typ.)		45 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.2 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	1.1 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.5 ms
		Max.	2 ms
Turn off time		Typ.	0.08 ms
		Max.	1 ms
Total Power dissipation			550 mW
I/O isolation voltage			5,000 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.19 g

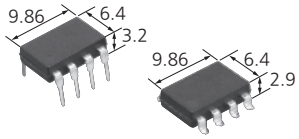
Product name			GE DIP				
Contact configuration			1 Form A				
Number of terminals			4–pin				
Number of terminals *Standoff height included							
Features			DIP4–pin type with high insulation				
Part No.			AQY211EH	AQY212EH	AQY210EH	AQY214EH	AQY216EH
Output	Load type		AC/DC				
	Load voltage	Peak AC	30 V	60 V	350 V	400 V	600 V
		DC	30 V	60 V	350 V	400 V	600 V
	Continuous load current						
	Peak load current		3 A	1.5 A	0.4 A	0.3 A	0.15 A
	Power dissipation		500 mW				
	On resistance	Typ.	0.25 Ω	0.85 Ω	18 Ω	26 Ω	52 Ω
		Max.	0.5 Ω	2.5 Ω	25 Ω	35 Ω	120 Ω
	Output capacitance (Typ.)		240 pF	80 pF	45 pF		35 pF
	Off state leakage current (Max.)		1 μA				
Input	LED forward current		50 mA				
	LED reverse voltage		5 V				
	Peak forward current		1 A				
	Power dissipation		75 mW				
	LED operate current	Typ.	1.2 mA				
		Max.	3 mA				
	LED turn off current	Min.	0.4 mA				
		Typ.	1.1 mA				
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)				
		Max.	1.5 V				
Turn on time		Typ.	1.5 ms	1 ms	0.5 ms		
		Max.	5 ms	4 ms	2 ms		
Turn off time		Typ.	0.1 ms	0.05 ms	0.08 ms		0.04 ms
		Max.	1 ms	1 ms	1 ms		1 ms
Total Power dissipation			550 mW				
I/O isolation voltage			5,000 Vrms				
I/O capacitance		Typ.	0.8 pF				
		Max.	1.5 pF				
Initial I/O isolation resistance (Min.)			1,000 MΩ				
Safety standards			UL	UL, VDE			
Mass (weight) (approx.)			0.19 g				

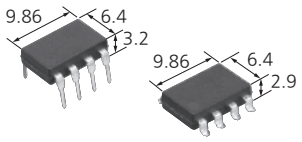
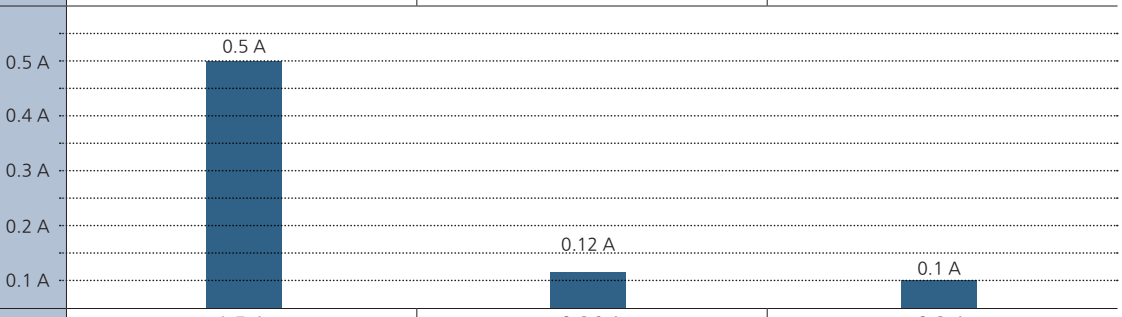
Product name			GE DIP	
Contact configuration			1 Form A	
Number of terminals			6–pin	
Number of terminals *Standoff height included				
Features			DIP6–pin type with high insulation	
Part No.			AQV210EH	AQV214EH
Output	Load type		AC/DC	
	Load voltage	Peak AC	350 V	400 V
		DC	350 V	400 V
	Continuous load current *6–pin type: in case of A connection	0.5 A 0.4 A 0.3 A 0.2 A 0.1 A	0.13 A	0.12 A
	Peak load current		0.4 A	0.3 A
	Power dissipation		500 mW	
	On resistance *6–pin type: in case of A connection	Typ.	23 Ω	30 Ω
		Max.	35 Ω	50 Ω
	Output capacitance (Typ.)		45 pF	
	Off state leakage current (Max.)		1 μA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	1.6 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	
		Typ.	1.5 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V	
Turn on time		Typ.	0.7 ms	
		Max.	2 ms	
Turn off time		Typ.	0.05 ms	
		Max.	1 ms	
Total Power dissipation			550 mW	
I/O isolation voltage			5,000 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL, VDE	
Mass (weight) (approx.)			0.453 g	

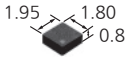
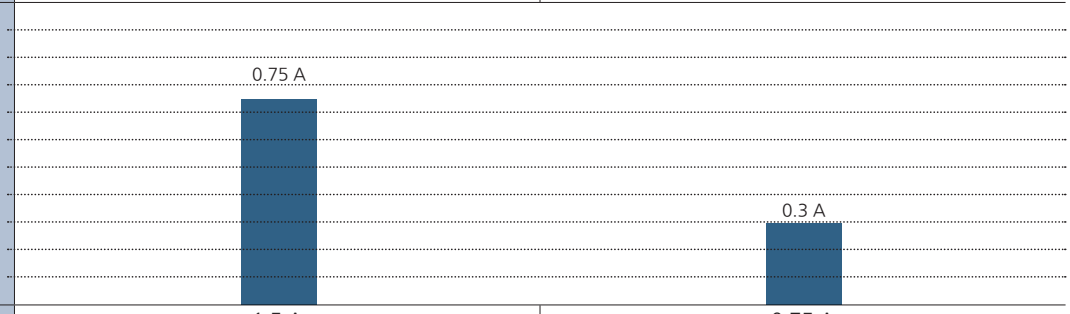
Product name			GE DIP			
Contact configuration			2 Form A			
Number of terminals			8–pin			
Number of terminals *Standoff height included						
Features			DIP8–pin type with high insulation			
Part No.			AQW212EH	AQW210EH	AQW214EH	AQW216EH
Output	Load type		AC/DC			
	Load voltage	Peak AC	60 V	350 V	400 V	600 V
		DC	60 V	350 V	400 V	600 V
	Continuous load current					
	Peak load current		1.5 A	0.36 A	0.3 A	0.12 A
	Power dissipation		800 mW			
	On resistance	Typ.	0.83 Ω	18 Ω	26 Ω	52 Ω
		Max.	2.5 Ω	25 Ω	35 Ω	120 Ω
	Output capacitance (Typ.)		80 pF	45 pF		35 pF
	Off state leakage current (Max.)		1 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	1.2 mA			
		Max.	3 mA			
	LED turn off current	Min.	0.4 mA			
		Typ.	1.1 mA			
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)			
		Max.	1.5 V			
Turn on time		Typ.	1 ms	0.5 ms		
		Max.	4 ms	2 ms		
Turn off time		Typ.	0.08 ms			0.04 ms
		Max.	1 ms			1 ms
Total Power dissipation			850 mW			
I/O isolation voltage			5,000 Vrms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE			
Mass (weight) (approx.)			0.4 g			

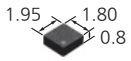
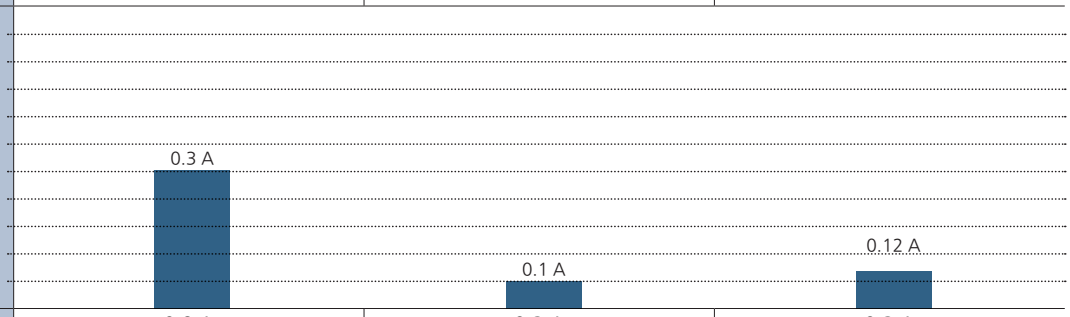
Product name			GE DIP		
Contact configuration			1 Form B		
Number of terminals			4–pin		
Number of terminals *Standoff height included					
Features			Normally closed type with high insulation		
Part No.			AQY412EH	AQY410EH	AQY414EH
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	350 V	400 V
		DC	60 V	350 V	400 V
	Continuous load current				
	Peak load current		1.5 A	0.4 A	0.3 A
	Power dissipation		500 mW		
	On resistance	Typ.	1 Ω	18 Ω	26 Ω
		Max.	2.5 Ω	25 Ω	35 Ω
	Output capacitance (Typ.)		500 pF	110 pF	100 pF
	Off state leakage current (Max.)		10 μA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	1.4 mA		
		Max.	3 mA		
	LED turn off current	Min.	0.4 mA		
		Typ.	1.3 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	3 ms	1 ms	0.8 ms
		Max.	10 ms	3 ms	3 ms
Turn off time		Typ.	0.2 ms	0.3 ms	0.2 ms
		Max.	1 ms	1 ms	1 ms
Total Power dissipation			550 mW		
I/O isolation voltage			5,000 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL, VDE		
Mass (weight) (approx.)			0.19 g		

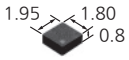
Product name			GE DIP		
Contact configuration			1 Form B		
Number of terminals			6–pin		
Number of terminals *Standoff height included					
Features			Normally closed type with high insulation		
Part No.			AQV412EH	AQV410EH	AQV414EH
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	350 V	400 V
		DC	60 V	350 V	400 V
	Continuous load current *6–pin type: in case of A connection				
	Peak load current		1.5 A	0.4 A	0.3 A
	Power dissipation		500 mW		
	On resistance *6–pin type: in case of A connection	Typ.	1 Ω	18 Ω	25.2 Ω
		Max.	2.5 Ω	35 Ω	50 Ω
	Output capacitance (Typ.)		500 pF	110 pF	100 pF
	Off state leakage current (Max.)		10 μA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	1.9 mA		
		Max.	3 mA		
	LED turn off current	Min.	0.4 mA		
		Typ.	1.8 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	3 ms	1.5 ms	1.3 ms
		Max.	8 ms	3 ms	3 ms
Turn off time		Typ.	0.3 ms		
		Max.	1.5 ms		
Total Power dissipation			550 mW		
I/O isolation voltage			5,000 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL, VDE		
Mass (weight) (approx.)			0.453 g		

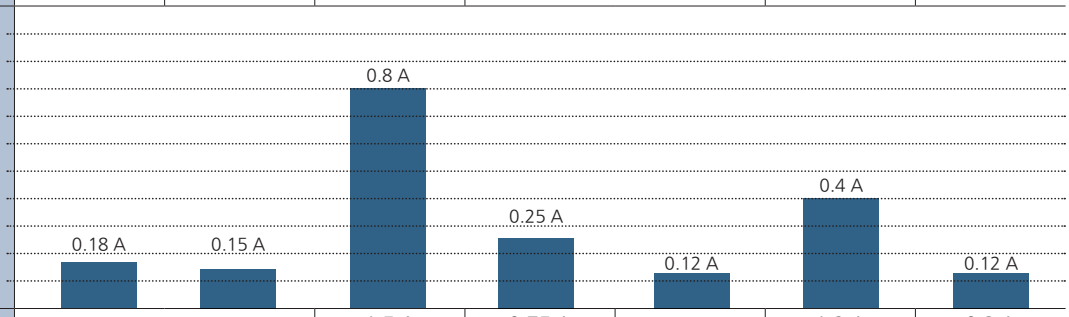
Product name			GE DIP
Contact configuration			2 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Normally closed type with high insulation
Part No.			AQW414EH
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.5 A	
		0.4 A	
		0.3 A	
		0.2 A	
		0.1 A	0.1 A
	Peak load current		0.3 A
	Power dissipation		800 mW
	On resistance	Typ.	26 Ω
		Max.	35 Ω
	Output capacitance (Typ.)		100 pF
	Off state leakage current (Max.)		10 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.3 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	1.2 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.8 ms
		Max.	3 ms
Turn off time		Typ.	0.2 ms
		Max.	1 ms
Total Power dissipation			850 mW
I/O isolation voltage			5,000 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			0.4 g

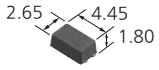
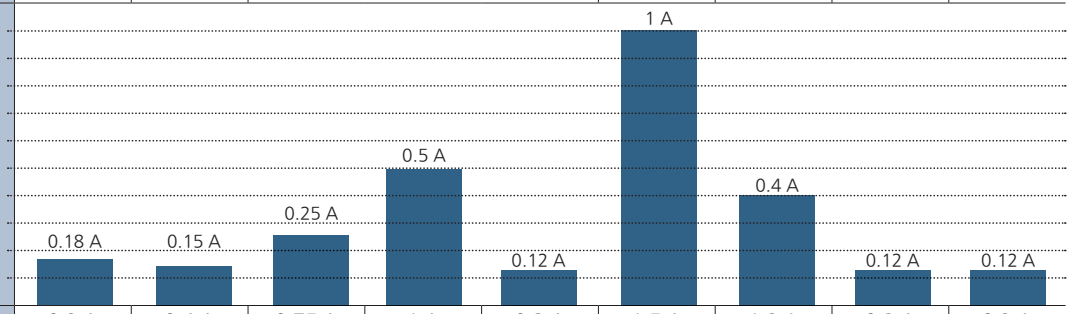
Product name			GE DIP		
Contact configuration			1 Form A & 1 Form B		
Number of terminals			8–pin		
Number of terminals *Standoff height included					
Features			Both N.O. and N.C. contacts incorporated in a compact DIP8–pin high insulation		
Part No.			AQW612EH	AQW610EH	AQW614EH
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	350 V	400 V
		DC	60 V	350 V	400 V
	Continuous load current				
	Peak load current		1.5 A	0.36 A	0.3 A
	Power dissipation		800 mW		
	On resistance	Typ.	1 Ω	18 Ω	26 Ω
		Max.	2.5 Ω	25 Ω	35 Ω
	Output capacitance (Typ.)		80 pF (N.O.) , 500 pF (N.C.)	45 pF (N.O.) , 100 pF (N.C.)	
	Off state leakage current (Max.)		1 μA (N.O.) , 10 μA (N.C.)		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	1.4 mA		
		Max.	3 mA		
	LED turn off current	Min.	0.4 mA		
		Typ.	1.3 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	1 ms (N.O.) , 3 ms (N.C.)	0.5 ms (N.O.) , 1 ms (N.C.)	0.5 ms (N.O.) , 0.8 ms (N.C.)
		Max.	4 ms (N.O.) , 10 ms (N.C.)	3 ms	3 ms
Turn off time		Typ.	0.05 ms (N.O.) , 0.2 ms (N.C.)	0.08 ms (N.O.) , 0.3 ms (N.C.)	0.08 ms (N.O.) , 0.2 ms (N.C.)
		Max.	1 ms	1 ms	1 ms
Total Power dissipation			850 mW		
I/O isolation voltage			5,000 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL, VDE		
Mass (weight) (approx.)			0.4 g		

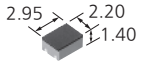
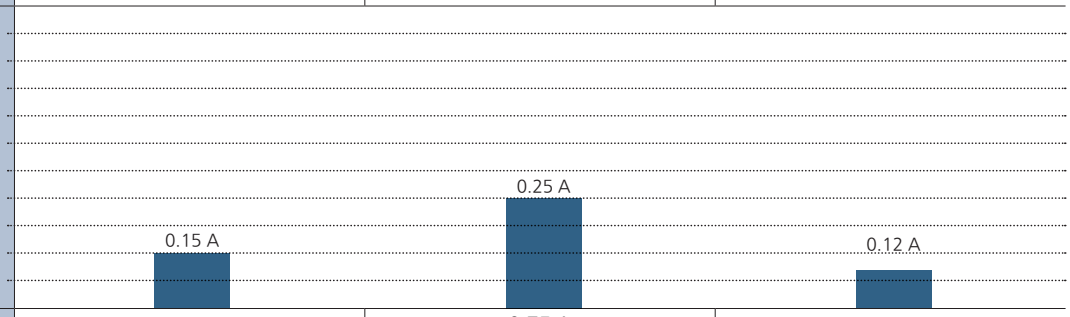
Product name			CC TSON Low C × R	
Contact configuration			1 Form A	
Number of terminals			4–pin	
Number of terminals *Standoff height included				
Features			Super miniature TSON package, Capacitor Coupled isolation type	
Part No.			AQY2C1R6PX	AQY2C1R2PX
Output	Load type		AC/DC	
	Load voltage	Peak AC	30 V	40 V
		DC	30 V	40 V
	Continuous load current			
	Peak load current		1.5 A	0.75 A
	Power dissipation		250 mW	
	On resistance	Typ.	0.2 Ω (V_{IN} = 5 V)	0.8 Ω (V_{IN} = 5 V)
		Max.	0.4 Ω (V_{IN} = 5 V)	1.5 Ω (V_{IN} = 5 V)
	Output capacitance (Typ.)		40 pF	14.5 pF
	Off state leakage current (Max.)		10 nA	
Input	Input voltage		5.5 V	
	Input reverse voltage		0.2 V	
	Power dissipation		1.2 mW	
	Operate voltage	Typ.	1.7 V	1.8 V
		Max.	2.5 V	2.5 V
	Turn off voltage	Min.	0.5 V	0.5 V
		Typ.	1.5 V	1.4 V
	Input current	Typ.	0.09 mA (V_{IN} = 5 V)	
		Max.	0.2 mA (V_{IN} = 5 V)	
Turn on time		Typ.	0.12 ms (V_{IN} = 5 V)	0.06 ms (V_{IN} = 5 V)
		Max.	0.5 ms (V_{IN} = 5 V)	0.5 ms (V_{IN} = 5 V)
Turn off time		Typ.	0.1 ms (V_{IN} = 5 V)	0.06 ms (V_{IN} = 5 V)
		Max.	0.5 ms (V_{IN} = 5 V)	0.5 ms (V_{IN} = 5 V)
Total Power dissipation			250 mW	
I/O isolation voltage			200 Vrms	
I/O capacitance		Typ.	1.2 pF	
		Max.	3 pF	
Initial I/O isolation resistance (Min.)			–	
Safety standards			–	
Mass (weight) (approx.)			0.007 g	

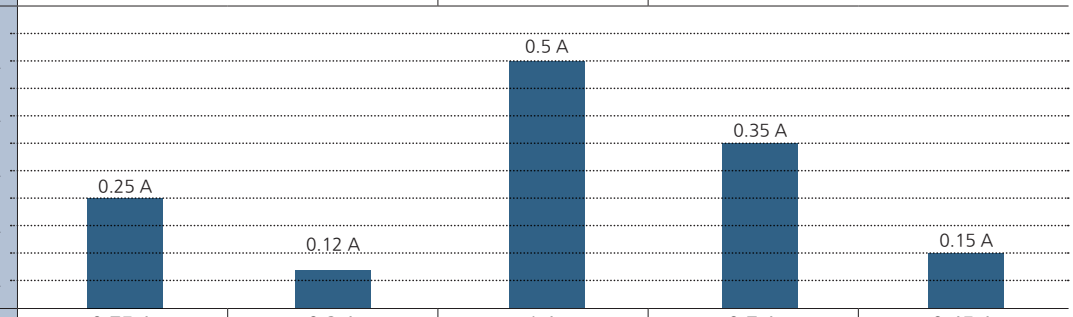
Product name			CC TSON Low C × R		
Contact configuration			1 Form A		
Number of terminals			4–pin		
Number of terminals *Standoff height included					
Features			Super miniature TSON package, Capacitor Coupled isolation type		
Part No.			AQY2C2R2PX	AQY2C1R3PX	AQY2C5R3PX
Output	Load type		AC/DC		
	Load voltage	Peak AC	60 V	40 V	100 V
		DC	60 V	40 V	100 V
	Continuous load current				
	Peak load current		0.9 A	0.3 A	0.3 A
	Power dissipation		250 mW		
	On resistance	Typ.	0.9 Ω (V_{IN} = 5 V)	10.5Ω (V_{IN} = 5 V)	9 Ω (V_{IN} = 5 V)
		Max.	1.5 Ω (V_{IN} = 5 V)	15 Ω (V_{IN} = 5 V)	14 Ω (V_{IN} = 5 V)
	Output capacitance (Typ.)		27 pF	1.2 pF	5.8 pF
	Off state leakage current (Max.)		10 nA		
Input	Input voltage		5.5 V		
	Input reverse voltage		0.2 V		
	Power dissipation		1.2 mW		
	Operate voltage	Typ.	1.7 V	2.2 V	2 V
		Max.	2.5 V	2.5 V	2.5 V
	Turn off voltage	Min.	0.5 V	0.5 V	0.5 V
		Typ.	1.4 V	1.5 V	1.5 V
	Input current	Typ.	0.09 mA (V_{IN} = 5 V)		
		Max.	0.2 mA (V_{IN} = 5 V)		
Turn on time		Typ.	0.08 ms (V_{IN} = 5 V)	0.01 ms (V_{IN} = 5 V)	0.03 ms (V_{IN} = 5 V)
		Max.	0.5 ms (V_{IN} = 5 V)	0.1 ms (V_{IN} = 5 V)	0.2 ms (V_{IN} = 5 V)
Turn off time		Typ.	0.1 ms (V_{IN} = 5 V)	0.02 ms (V_{IN} = 5 V)	0.04 ms (V_{IN} = 5 V)
		Max.	0.5 ms (V_{IN} = 5 V)	0.2 ms (V_{IN} = 5 V)	0.5 ms (V_{IN} = 5 V)
Total Power dissipation			250 mW		
I/O isolation voltage			200 Vrms		
I/O capacitance		Typ.	1.2 pF		
		Max.	3 pF		
Initial I/O isolation resistance (Min.)			–		
Safety standards			–		
Mass (weight) (approx.)			0.007 g		

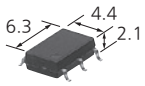
Product name			CC TSON
Contact configuration			1 Form B
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			Normally closed, ultra–miniature TSON type using capacitive isolation technology
Part No.			AQY4C2PX
Output	Load type		AC/DC
	Load voltage	Peak AC	60 V
		DC	60 V
	Continuous load current	0.5 A 0.4 A 0.3 A 0.2 A 0.1 A	0.15 A
	Peak load current		0.4 A
	Power dissipation		250 mW
	On resistance	Typ.	4 Ω (V_{IN} = 0 V)
		Max.	8 Ω (V_{IN} = 0 V)
	Output capacitance (Typ.)		70 pF
	Off state leakage current (Max.)		10 nA
Input	Input voltage		5.5 V
	Input reverse voltage		0.2 V
	Power dissipation		1.2 mW
	Operate voltage	Typ.	1.6 V
		Max.	2.5 V
	Turn off voltage	Min.	0.5 V
		Typ.	1.4 V
	Input current	Typ.	0.09 mA (V_{IN} = 5 V)
		Max.	0.2 mA (V_{IN} = 5 V)
Turn on time		Typ.	0.06 ms (V_{IN} = 5 V)
		Max.	0.5 ms (V_{IN} = 5 V)
Turn off time		Typ.	0.5 ms (V_{IN} = 5 V)
		Max.	1.5 ms (V_{IN} = 5 V)
Total Power dissipation			250 mW
I/O isolation voltage			200 Vrms
I/O capacitance		Typ.	1.2 pF
		Max.	3 pF
Initial I/O isolation resistance (Min.)			–
Safety standards			–
Mass (weight) (approx.)			0.007 g

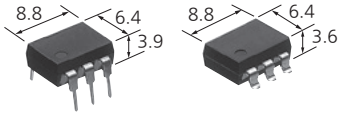
Product name			RF VSSOP Low C × R						
Contact configuration			1 Form A						
Number of terminals			4–pin						
Number of terminals *Standoff height included									
Features			Low C × R miniature 1 Form A type (VSSOP package)						
Part No.			AQY221N5TY	AQY221N3TY	AQY221R6TY	AQY221R2TY	AQY221N2TY	AQY222R2TY	AQY225R3TY
Output	Load type		AC/DC						
	Load voltage	Peak AC	20 V	25 V	30 V	40 V		60 V	100 V
		DC	20 V	25 V	30 V	40 V		60 V	100 V
	Continuous load current								
	Peak load current		—		1.5 A	0.75 A	—	1.2 A	0.3 A
	Power dissipation		250 mW						
	On resistance	Typ.	2.8 Ω	5.5 Ω	0.18 Ω	0.8 Ω	9.5 Ω	0.8 Ω	8.8 Ω
		Max.	4.5 Ω	7.5 Ω	0.35 Ω	1.25 Ω	12.5 Ω	1.25 Ω	14 Ω
	Output capacitance (Typ.)		1.1 pF	1.1 pF	37.5 pF	14 pF	1.1 pF	27 pF	5.8 pF
	Off state leakage current (Max.)		10 nA						
Input	LED forward current		50 mA						
	LED reverse voltage		5 V						
	Peak forward current		1 A						
	Power dissipation		75 mW						
	LED operate current	Typ.	0.7 mA		0.5 mA		0.7 mA	0.4 mA	
		Max.	3 mA						
	LED turn off current	Min.	0.2 mA		0.1 mA		0.2 mA	0.1 mA	
		Typ.	0.6 mA		0.4 mA		0.6 mA	0.35 mA	
	LED dropout voltage	Typ.	1.14 V (1.35 V at I_F = 50 mA)						
		Max.	1.5 V						
Turn on time		Typ.	0.02 ms	0.01 ms	0.1 ms		0.01 ms	0.12 ms	0.04 ms
		Max.	0.2 ms		0.5 ms		0.2 ms	0.5 ms	
Turn off time		Typ.	0.01 ms	0.03 ms	0.06 ms		0.03 ms	0.08 ms	0.05 ms
		Max.	0.2 ms						
Total Power dissipation			300 mW						
I/O isolation voltage			200 Vrms						
I/O capacitance		Typ.	0.4 pF						
		Max.	1.5 pF						
Initial I/O isolation resistance (Min.)			—						
Safety standards			—						
Mass (weight) (approx.)			0.026 g						

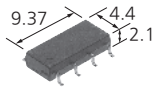
Product name			RF SSOP Low C × R							
Contact configuration			1 Form A							
Number of terminals			4–pin							
Number of terminals *Standoff height included										
Features			Low C × R miniature 1 Form A type (SSOP package)							
Part No.			AQY221N5VY	AQY221N3VY	AQY221R2VY	AQY221R4VY	AQY221N2VY	AQY221R6VY	AQY222R2VY	AQY225R2VY	AQY225R3VY
Output	Load type		AC/DC							
	Load voltage	Peak AC	20 V	25 V	40 V			30 V	60 V	80 V	100 V
		DC	20 V	25 V	40 V			30 V	60 V	80 V	100 V
	Continuous load current										
	Peak load current		0.3 A	0.4 A	0.75 A	1 A	0.3 A	1.5 A	1.2 A	0.3 A	0.3 A
	Power dissipation		250 mW								
	On resistance	Typ.	2.8 Ω	5.5 Ω	0.75 Ω	0.55 Ω	9.5 Ω	0.18 Ω	0.8 Ω	10.5 Ω	8.8 Ω
		Max.	4.5 Ω	7.5 Ω	1.25 Ω	1 Ω	12.5 Ω	0.35 Ω	1.25 Ω	15 Ω	14 Ω
	Output capacitance (Typ.)		1.1 pF	1 pF	12.5 pF	24 pF	1 pF	37.5 pF	27 pF	4.5 pF	5.8 pF
	Off state leakage current (Max.)		10 nA								
Input	LED forward current		50 mA								
	LED reverse voltage		5 V								
	Peak forward current		1 A								
	Power dissipation		75 mW								
	LED operate current	Typ.	0.8 mA	1 mA	0.9 mA		1 mA	0.7 mA	0.5 mA		
		Max.	3 mA								
	LED turn off current	Min.	0.2 mA		0.1 mA		0.2 mA	0.1 mA			
		Typ.	0.7 mA	0.9 mA	0.8 mA		0.9 mA	0.6 mA	0.45 mA		
	LED dropout voltage	Typ.	1.35 V (1.14 V at I_F = 5 mA)						1.32 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V								
Turn on time		Typ.	0.02 ms		0.1 ms	0.25 ms	0.02 ms	0.2 ms	0.15 ms	0.05 ms	
		Max.	0.2 ms		0.5 ms	0.75 ms			0.5 ms		
Turn off time		Typ.	0.01 ms	0.02 ms	0.08 ms		0.02 ms	0.07 ms	0.08 ms	0.05 ms	
		Max.	0.2 ms								
Total Power dissipation			300 mW								
I/O isolation voltage			1,500 Vrms								
I/O capacitance		Typ.	0.8 pF								
		Max.	1.5 pF								
Initial I/O isolation resistance (Min.)			1,000 MΩ								
Safety standards			—								
Mass (weight) (approx.)			0.064 g								

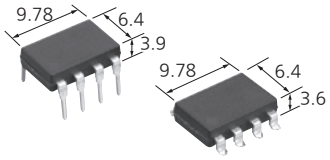
Product name			RF SON Low C × R		
Contact configuration			1 Form A		
Number of terminals			4–pin		
Number of terminals *Standoff height included					
Features			Micro–miniature SON package C × R10: 40 V load voltage C × R5: 25 V load voltage		
Part No.			AQY221N3MY	AQY221R2MY	AQY221N2MY
Output	Load type		AC/DC		
	Load voltage	Peak AC	25 V	40 V	40 V
		DC	25 V	40 V	40 V
	Continuous load current				
	Peak load current		—	0.75 A	—
	Power dissipation		250 mW		
	On resistance	Typ.	5.5 Ω	0.8 Ω	9.5 Ω
		Max.	7.5 Ω	1.25 Ω	12.5 Ω
	Output capacitance (Typ.)		1.1 pF	14 pF	1.1 pF
	Off state leakage current (Max.)		10 nA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	1 mA	0.8 mA	1 mA
		Max.	3 mA		
	LED turn off current	Min.	0.2 mA	0.1 mA	0.2 mA
		Typ.	0.9 mA	0.7 mA	0.9 mA
	LED dropout voltage	Typ.	1.35 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	0.02 ms	0.2 ms	0.02 ms
		Max.	0.2 ms	0.5 ms	0.2 ms
Turn off time		Typ.	0.02 ms	0.04 ms	0.02 ms
		Max.	0.2 ms		
Total Power dissipation			300 mW		
I/O isolation voltage			200 Vrms		
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			—		
Safety standards			—		
Mass (weight) (approx.)			0.024 g		

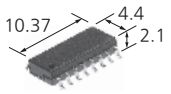
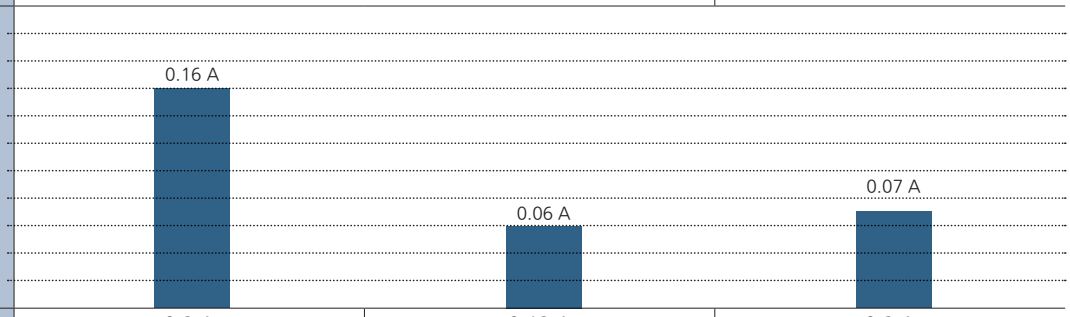
Product name			RF SOP Low C × R				
Contact configuration			1 Form A				
Number of terminals			4–pin				
Number of terminals *Standoff height included							
Features			Low C × R miniature type (SOP4–pin) load voltage 40 V, 60 V, and 80 V				
Part No.			AQY221R2S	AQY221N2S	AQY222R1S	AQY225R1S	AQY225R2S
Output	Load type		AC/DC				
	Load voltage	Peak AC	40 V		60 V	80 V	
		DC	40 V		60 V	80 V	
	Continuous load current						
	Peak load current		0.75 A	0.3 A	1 A	0.7 A	0.45 A
	Power dissipation		300 mW				
	On resistance	Typ.	0.8 Ω	9.5 Ω	0.8 Ω		10.5 Ω
		Max.	1.25 Ω	12.5 Ω	1.2 Ω		15 Ω
	Output capacitance (Typ.)		13 pF	1 pF	24.5 pF	37.5 pF	4.5 pF
	Off state leakage current (Max.)		10 nA				
Input	LED forward current		50 mA				
	LED reverse voltage		5 V				
	Peak forward current		1 A				
	Power dissipation		75 mW				
	LED operate current	Typ.	0.5 mA	0.9 mA	0.5 mA		
		Max.	3 mA				
	LED turn off current	Min.	0.1 mA	0.2 mA	0.1 mA		
		Typ.	0.4 mA	0.85 mA	0.45 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		1.32 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V				
Turn on time		Typ.	0.1 ms	0.03 ms	0.15 ms	0.25 ms	0.05 ms
		Max.	0.5 ms			0.75 ms	0.5 ms
Turn off time		Typ.	0.06 ms	0.03 ms	0.06 ms	0.08 ms	0.05 ms
		Max.	0.2 ms				
Total Power dissipation			350 mW				
I/O isolation voltage			500 Vrms	1,500 Vrms			
I/O capacitance		Typ.	0.8 pF				
		Max.	1.5 pF				
Initial I/O isolation resistance (Min.)			1,000 MΩ				
Safety standards			UL				
Mass (weight) (approx.)			0.084 g				

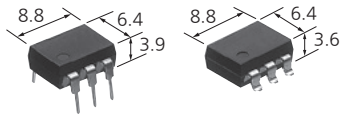
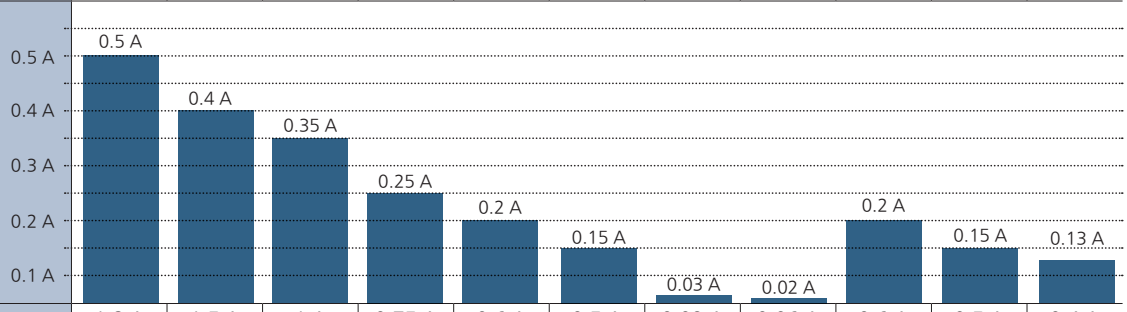
Product name			RF SOP	
Contact configuration			1 Form A	
Number of terminals			6–pin	
Number of terminals *Standoff height included				
Features			Miniature SOP6–pin type Low on–resistance 200 V/400 V load voltage	
Part No.			AQV227NS	AQV224NS
Output	Load type		AC/DC	
	Load voltage	Peak AC	200 V	400 V
		DC	200 V	400 V
	Continuous load current *6–pin type: in case of A connection	0.2 A 0.1 A 0.05 A 0.04 A		
	Peak load current		0.15 A	0.12 A
	Power dissipation		450 mW	
	On resistance *6–pin type: in case of A connection	Typ.	30 Ω	70 Ω
		Max.	50 Ω	100 Ω
	Output capacitance (Typ.)		10 pF	
	Off state leakage current (Max.)		10 nA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.7 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	
		Typ.	0.65 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V	
Turn on time		Typ.	0.12 ms	0.1 ms
		Max.	0.5 ms	0.5 ms
Turn off time		Typ.	0.05 ms	
		Max.	0.2 ms	
Total Power dissipation			500 mW	
I/O isolation voltage			1,500 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL	
Mass (weight) (approx.)			0.125 g	

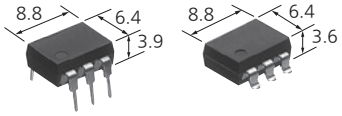
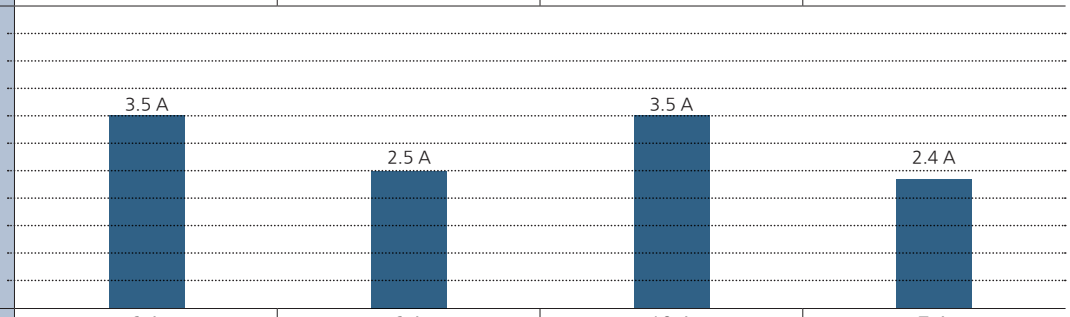
Product name			RF DIP	
Contact configuration			1 Form A	
Number of terminals			6–pin	
Number of terminals *Standoff height included				
Features			DIP6–pin type featuring low on–resistance 200 V/400 V load voltage	
Part No.			AQV227N	AQV224N
Output	Load type		AC/DC	
	Load voltage	Peak AC	200 V	400 V
		DC	200 V	400 V
	Continuous load current *6–pin type: in case of A connection	0.2 A / 0.1 A		
	Peak load current		0.21 A	0.15 A
	Power dissipation		360 mW	
	On resistance *6–pin type: in case of A connection	Typ.	30 Ω	70 Ω
		Max.	50 Ω	100 Ω
	Output capacitance (Typ.)		10 pF	
	Off state leakage current (Max.)		10 nA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.9 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	
		Typ.	0.85 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V	
Turn on time		Typ.	0.2 ms	
		Max.	0.5 ms	
Turn off time		Typ.	0.08 ms	
		Max.	0.2 ms	
Total Power dissipation			410 mW	
I/O isolation voltage			1,500 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL	
Mass (weight) (approx.)			0.453 g	

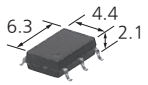
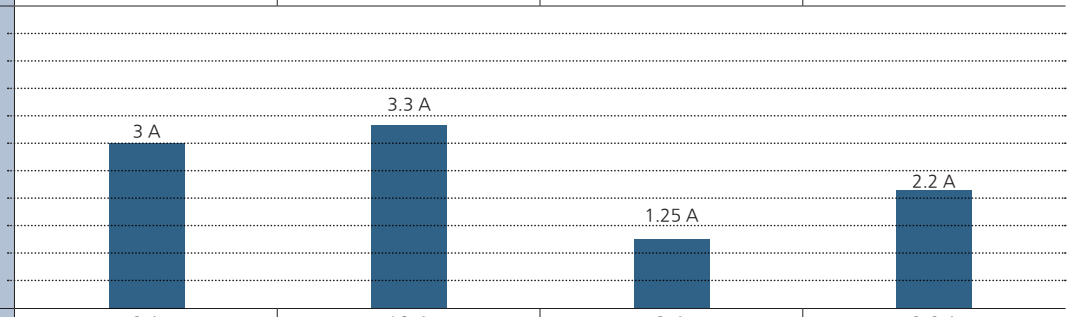
Product name			RF SOP Low C × R	
Contact configuration			2 Form A	
Number of terminals			8-pin	
Number of terminals *Standoff height included				
Features			Low on-resistance miniature 2 Form A type (SOP8-pin) , load voltage 200 V and 250 V	
Part No.			AQW227NS	AQW223R2S
Output	Load type		AC/DC	
	Load voltage	Peak AC	200 V	250 V
		DC	200 V	250 V
	Continuous load current			
	Peak load current		0.15 A	0.42 A
	Power dissipation		600 mW	
	On resistance	Typ.	30 Ω	11 Ω
		Max.	50 Ω	15 Ω
	Output capacitance (Typ.)		10 pF	33 pF
	Off state leakage current (Max.)		10 nA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.7 mA	0.5 mA
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	0.1 mA
		Typ.	0.65 mA	0.45 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	1.32 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V	
Turn on time		Typ.	0.25 ms	0.15 ms
		Max.	0.5 ms	
Turn off time		Typ.	0.08 ms	0.05 ms
		Max.	0.2 ms	
Total Power dissipation			650 mW	
I/O isolation voltage			1,500 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL	
Mass (weight) (approx.)			0.195 g	

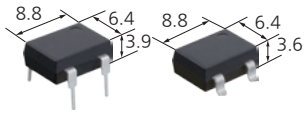
Product name			RF DIP	
Contact configuration			2 Form A	
Number of terminals			8–pin	
Number of terminals *Standoff height included				
Features			DIP8–pin type featuring low on–resistance 200 V/400 V load voltage	
Part No.			AQW227N	AQW224N
Output	Load type		AC/DC	
	Load voltage	Peak AC	200 V	400 V
		DC	200 V	400 V
	Continuous load current	0.2 A 0.1 A 0.05 A 0.04 A		
	Peak load current		0.15 A	0.12 A
	Power dissipation		800 mW	
	On resistance	Typ.	30 Ω	70 Ω
		Max.	50 Ω	100 Ω
	Output capacitance (Typ.)		10 pF	
	Off state leakage current (Max.)		10 nA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.9 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.4 mA	
		Typ.	0.8 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)	
		Max.	1.5 V	
Turn on time		Typ.	0.2 ms	
		Max.	0.5 ms	
Turn off time		Typ.	0.08 ms	
		Max.	0.2 ms	
Total Power dissipation			850 mW	
I/O isolation voltage			1,500 Vrms	
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL	
Mass (weight) (approx.)			0.5 g	

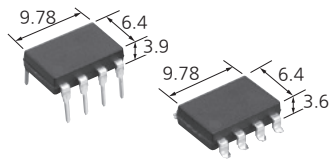
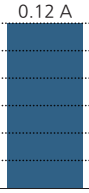
Product name			RF SOP Low C × R		
Contact configuration			4 Form A		
Number of terminals			16–pin		
Number of terminals *Standoff height included					
Features			Low C × R miniature 4 Form A type (SOP16–pin) load voltage 40 V and 80 V		
Part No.			AQS221R2S	AQS221N2S	AQS225R2S
Output	Load type		AC/DC		
	Load voltage	Peak AC	40 V		80 V
		DC	40 V		80 V
	Continuous load current				
	Peak load current		0.2 A	0.12 A	0.2 A
	Power dissipation		600 mW		
	On resistance	Typ.	0.8 Ω	9.5 Ω	10.5 Ω
		Max.	1.25 Ω	12.5 Ω	15 Ω
	Output capacitance (Typ.)		13 pF	1 pF	4.5 pF
	Off state leakage current (Max.)		10 nA		
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	0.5 mA	0.9 mA	
		Max.	3 mA		
	LED turn off current	Min.	0.1 mA		0.3 mA
		Typ.	0.4 mA	0.85 mA	
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	0.15 ms	0.03 ms	0.04 ms
		Max.	0.5 ms	0.2 ms	0.3 ms
Turn off time		Typ.	0.06 ms	0.03 ms	0.07 ms
		Max.	0.2 ms		
Total Power dissipation			650 mW		
I/O isolation voltage			500 Vrms		1,500 Vrms
I/O capacitance		Typ.	0.8 pF		
		Max.	1.5 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL		
Mass (weight) (approx.)			0.195 g		

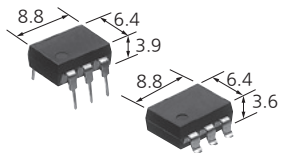
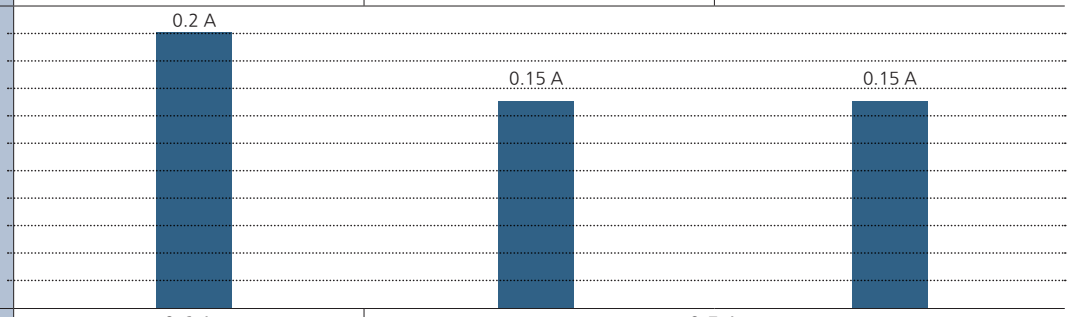
Product name			HE DIP									
Contact configuration			1 Form A									
Number of terminals			6–pin									
Number of terminals *Standoff height included												
Features			In the series, capable of Max. 3.5 A high capacity load current control and Max. 1,500 V high voltage control									
Part No.			AQV251	AQV252	AQV255	AQV257	AQV253	AQV254	AQV259	AQV258	AQV253H	AQV254H	AQV256H
Output	Load type		AC/DC									
	Load voltage	Peak AC	40 V	60 V	100 V	200 V	250 V	400 V	1,000 V	1,500 V	250 V	400 V	600 V
		DC	40 V	60 V	100 V	200 V	250 V	400 V	1,000 V	1,500 V	250 V	400 V	600 V
	Continuous load current *6–pin type: in case of A connection											
	Peak load current		1.8 A	1.5 A	1 A	0.75 A	0.6 A	0.5 A	0.09 A	0.06 A	0.6 A	0.5 A	0.4 A
	Power dissipation		360 mW									
	On resistance *6–pin type: in case of A connection	Typ.	0.6 Ω	0.74 Ω	1.8 Ω	2.6 Ω	5.5 Ω	12.4 Ω	85 Ω	345 Ω	5.5 Ω	12.4 Ω	20 Ω
		Max.	1 Ω	1.4 Ω	2.5 Ω	4 Ω	8 Ω	16 Ω	200 Ω	500 Ω	8 Ω	16 Ω	30 Ω
	Output capacitance (Typ.)		350 pF			170 pF			80 pF		170 pF		70 pF
	Off state leakage current (Max.)		1 μA						10 μA		1 μA		
Input	LED forward current		50 mA										
	LED reverse voltage		5 V										
	Peak forward current		1 A										
	Power dissipation		75 mW										
	LED operate current	Typ.	0.9 mA								1.4 mA		
		Max.	3 mA								3 mA		
	LED turn off current	Min.	0.4 mA								0.4 mA		
		Typ.	0.8 mA								1.3 mA		
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)										
		Max.	1.5 V										
Turn on time		Typ.	1.7 ms	1.4 ms	0.9 ms	1.5 ms	0.8 ms		0.6 ms	0.35 ms	2.4 ms	1.8 ms	1.2 ms
		Max.	3 ms	3 ms	2 ms	3 ms	2 ms		1 ms	1 ms	4 ms	3 ms	3 ms
Turn off time		Typ.	0.07 ms		0.09 ms	0.1 ms	0.06 ms	0.05 ms	0.04 ms	0.04 ms	0.06 ms	0.05 ms	0.06 ms
		Max.	0.2 ms		0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms
Total Power dissipation			410 mW										
I/O isolation voltage			1,500 Vrms								5,000 Vrms		
I/O capacitance		Typ.	1.3 pF										
		Max.	3 pF										
Initial I/O isolation resistance (Min.)			1,000 MΩ										
Safety standards			UL							UL, VDE			
Mass (weight) (approx.)			0.453 g										

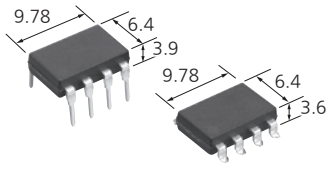
Product name			HE DIP			
Contact configuration			1 Form A			
Number of terminals			6–pin			
Number of terminals *Standoff height included						
Features			In the series, capable of Max. 3.5 A high capacity load current control and Max. 1,500 V high voltage control			
Part No.			AQV251G	AQV252G	AQV252G3	AQV255G3
Output	Load type		AC/DC			
	Load voltage	Peak AC	30 V	60 V	60 V	100 V
		DC	30 V	60 V	60 V	100 V
	Continuous load current *6–pin type: in case of A connection					
	Peak load current		6 A	6 A	10 A	7 A
	Power dissipation		600 mW			
	On resistance *6–pin type: in case of A connection	Typ.	0.035 Ω	0.08 Ω	0.033 Ω	0.07 Ω
		Max.	0.08 Ω	0.12 Ω	0.06 Ω	0.12 Ω
	Output capacitance (Typ.)		330 pF	240 pF	510 pF	430 pF
	Off state leakage current (Max.)		1 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	0.55 mA	0.5 mA	0.5 mA	0.5 mA
		Max.	3 mA	3 mA	3 mA	3 mA
	LED turn off current	Min.	0.2 mA			
		Typ.	0.45 mA		0.4 mA	
	LED dropout voltage	Typ.	1.32 V (1.14 V at I_F = 5 mA)			
		Max.	1.5 V			
Turn on time		Typ.	1.1 ms		1.8 ms	
		Max.	5 ms			
Turn off time		Typ.	0.1 ms	0.25 ms	0.15 ms	0.15 ms
		Max.	0.5 ms	0.5 ms	0.5 ms	0.5 ms
Total Power dissipation			650 mW			
I/O isolation voltage			1,500 Vrms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE		UL	
Mass (weight) (approx.)			0.453 g			

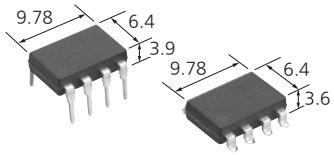
Product name			HE SOP			
Contact configuration			1 Form A			
Number of terminals			6–pin			
Number of terminals *Standoff height included						
Features			Miniature SOP6–pin type with high capacity up to Max. 3.3 A in the series			
Part No.			AQV252G2S	AQV252G3S	AQV255GS	AQV255G3S
Output	Load type		AC/DC			
	Load voltage	Peak AC	50 V	60 V	80 V	100 V
		DC	50 V	60 V	80 V	100 V
	Continuous load current *6–pin type: in case of A connection					
	Peak load current		6 A	10 A	3 A	6.6 A
	Power dissipation		450 mW			
	On resistance *6–pin type: in case of A connection	Typ.	0.04 Ω	0.033 Ω	0.09 Ω	0.07 Ω
		Max.	0.07 Ω	0.06 Ω	0.15 Ω	0.12 Ω
	Output capacitance (Typ.)		360 pF	510 pF	300 pF	430 pF
	Off state leakage current (Max.)		1 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	0.6 mA	0.5 mA	0.5 mA	0.5 mA
		Max.	3 mA	3 mA	3 mA	3 mA
	LED turn off current	Min.	0.2 mA	0.2 mA	0.2 mA	0.2 mA
		Typ.	0.5 mA	0.4 mA	0.4 mA	0.4 mA
	LED dropout voltage	Typ.	1.32 V (1.14 V at I_F = 5 mA)			
		Max.	1.5 V			
Turn on time		Typ.	1.5 ms	1.8 ms	1.3 ms	1.8 ms
		Max.	5 ms	5 ms	5 ms	5 ms
Turn off time		Typ.	0.08 ms	0.15 ms	0.1 ms	0.15 ms
		Max.	0.5 ms	0.5 ms	0.5 ms	0.5 ms
Total Power dissipation			500 mW			
I/O isolation voltage			1,500 Vrms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE	UL	UL, VDE	UL
Mass (weight) (approx.)			0.125 g			

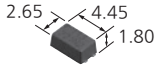
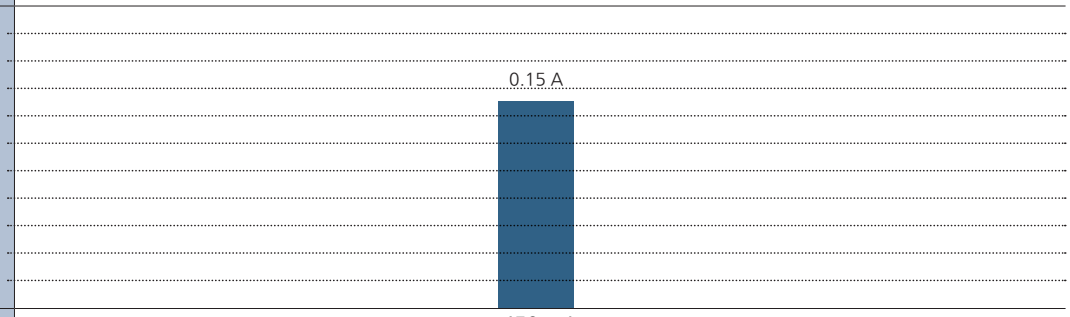
Product name			HE DIP
Contact configuration			1 Form A
Number of terminals			5–pin
Number of terminals *Standoff height included			
Features			Ideal for industrial battery monitoring system (BMS)
Part No.			AQV258H5
Output	Load type		AC/DC
	Load voltage	Peak AC	1,500 V
		DC	1,500 V
	Continuous load current	0.2 A	
		0.1 A	
			0.02 A
	Peak load current		0.06 A
	Power dissipation		360 mW
	On resistance	Typ.	315 Ω
		Max.	500 Ω
	Output capacitance (Typ.)		60 pF
	Off state leakage current (Max.)		10 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1.4 mA
		Max.	3 mA
	LED turn off current	Min.	0.2 mA
		Typ.	1.3 mA
	LED dropout voltage	Typ.	1.32 V (1.16 V at I_F = 10 mA)
		Max.	1.5 V
Turn on time		Typ.	0.35 ms
		Max.	1 ms
Turn off time		Typ.	0.04 ms
		Max.	0.2 ms
Total Power dissipation			410 mW
I/O isolation voltage			5,000 Vrms
I/O capacitance		Typ.	1.3 pF
		Max.	3 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.45 g

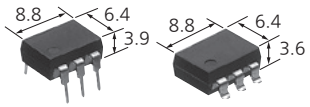
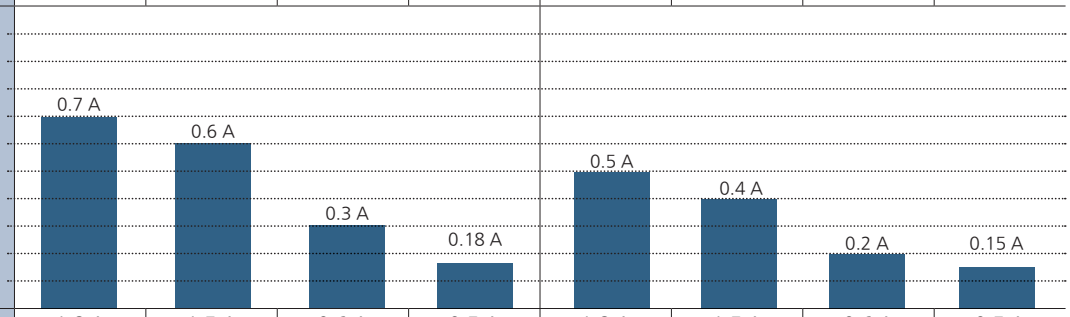
Product name			HE DIP
Contact configuration			2 Form A
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			DIP8–pin type featuring low on–resistance with 400 V load voltage
Part No.			AQW254
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current		0.2 A / 0.1 A / 0.12 A 
	Peak load current		0.36 A
	Power dissipation		800 mW
	On resistance	Typ.	10.2 Ω
		Max.	16 Ω
	Output capacitance (Typ.)		170 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.9 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.8 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.8 ms
		Max.	2 ms
Turn off time		Typ.	0.04 ms
		Max.	0.2 ms
Total Power dissipation			850 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.5 g

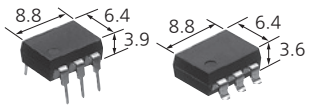
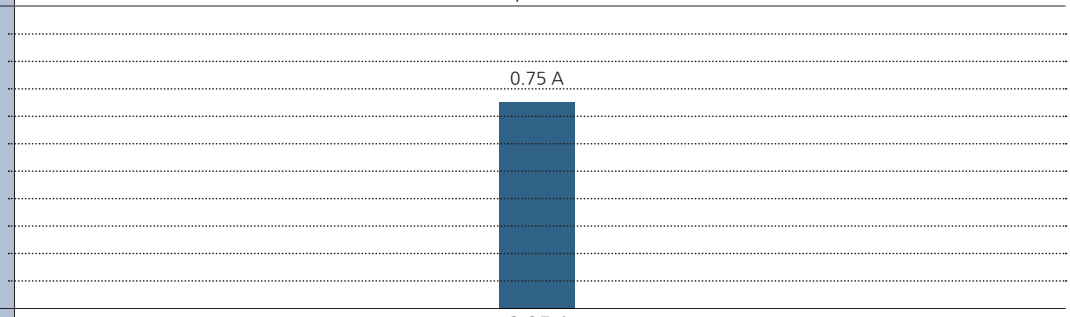
Product name			HE DIP		
Contact configuration			1 Form B		
Number of terminals			6–pin		
Number of terminals *Standoff height included					
Features			Normally closed DIP6–pin type Low on–resistance with 250 V/400 V load voltage		
Part No.			AQV453	AQV454	AQV454H
Output	Load type		AC/DC		
	Load voltage	Peak AC	250 V	400 V	400 V
		DC	250 V	400 V	400 V
	Continuous load current *6–pin type: in case of A connection				
	Peak load current		0.6 A	0.5 A	
	Power dissipation		360 mW		
	On resistance *6–pin type: in case of A connection	Typ.	5.5 Ω	10.5 Ω	
		Max.	8 Ω	16 Ω	
	Output capacitance (Typ.)		350 pF	170 pF	
	Off state leakage current (Max.)		1 μA		10 μA
Input	LED forward current		50 mA		
	LED reverse voltage		5 V		
	Peak forward current		1 A		
	Power dissipation		75 mW		
	LED operate current	Typ.	1 mA	0.9 mA	1.4 mA
		Max.	3 mA	3 mA	3 mA
	LED turn off current	Min.	0.4 mA	0.4 mA	0.4 mA
		Typ.	0.9 mA	0.8 mA	1.3 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)		
		Max.	1.5 V		
Turn on time		Typ.	1.52 ms	1.2 ms	1.8 ms
		Max.	3 ms	2 ms	3 ms
Turn off time		Typ.	0.4 ms	0.36 ms	0.4 ms
		Max.	1 ms	1 ms	1 ms
Total Power dissipation			410 mW		
I/O isolation voltage			1,500 Vrms		5,000 Vrms
I/O capacitance		Typ.	1.3 pF		
		Max.	3 pF		
Initial I/O isolation resistance (Min.)			1,000 MΩ		
Safety standards			UL		UL, VDE
Mass (weight) (approx.)			0.453 g		

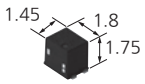
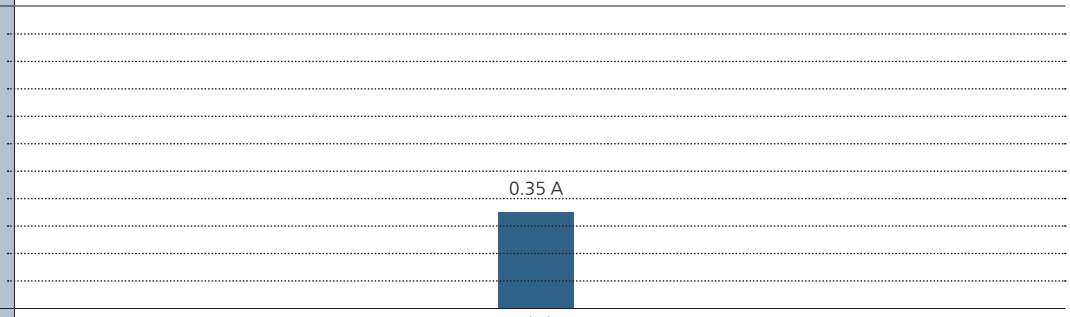
Product name			HE DIP
Contact configuration			2 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Normally closed (2 Form B) DIP6–pin type Low on–resistance with 400 V load voltage
Part No.			AQW454
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.2 A	
		0.1 A	0.12 A
	Peak load current		0.36 A
	Power dissipation		800 mW
	On resistance	Typ.	11 Ω
		Max.	16 Ω
	Output capacitance (Typ.)		170 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.9 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.8 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	1.2 ms
		Max.	2 ms
Turn off time		Typ.	0.36 ms
		Max.	1 ms
Total Power dissipation			850 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.5 g

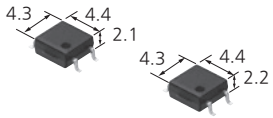
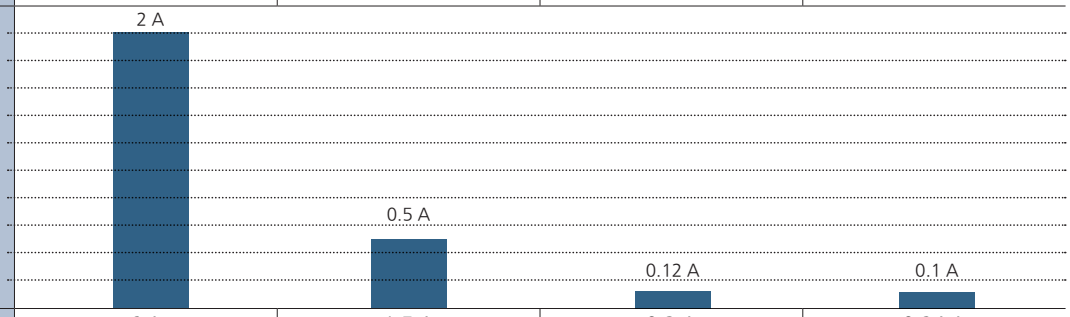
Product name			HE DIP
Contact configuration			1 Form A & 1 Form B
Number of terminals			8–pin
Number of terminals *Standoff height included			
Features			Both 1 Form A and 1 Form B contacts incorporated in a compact DIP8–pinwith low on–resistance
Part No.			AQW654
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	0.2 A 0.1 A	0.12 A
	Peak load current		0.36 A
	Power dissipation		800 mW
	On resistance	Typ.	11 Ω
		Max.	16 Ω
	Output capacitance (Typ.)		170 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.9 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.8 mA
	LED dropout voltage	Typ.	1.25 V (1.14 V at I_F = 5 mA)
		Max.	1.5 V
Turn on time		Typ.	0.8 ms (N.O.) , 1.2 ms (N.C.)
		Max.	2 ms
Turn off time		Typ.	0.04 ms (N.O.) , 0.36 ms (N.C.)
		Max.	1 ms
Total Power dissipation			850 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.5 g

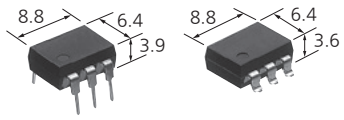
Product name			HF SSOP
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			Miniature SSOP package with load voltage of 600 V
Part No.			AQY206GVY
Output	Load type		AC/DC
	Load voltage	Peak AC	600 V
		DC	600 V
	Continuous load current		
	Peak load current		450 mA
	Power dissipation		350 mW
	On resistance	Typ.	8 Ω
		Max.	15 Ω
	Output capacitance (Typ.)		33 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		30 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		60 mW
	LED operate current	Typ.	0.1 mA
		Max.	1 mA
	LED turn off current	Min.	0.01 mA
		Typ.	0.1 mA
	LED dropout voltage	Typ.	1.47 V
		Max.	1.7 V
Turn on time		Typ.	0.06 ms
		Max.	0.2 ms
Turn off time		Typ.	0.02 ms
		Max.	0.2 ms
Total Power dissipation			400 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			—
Mass (weight) (approx.)			0.064 g

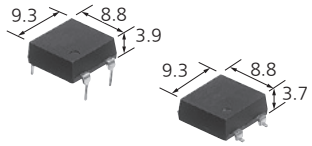
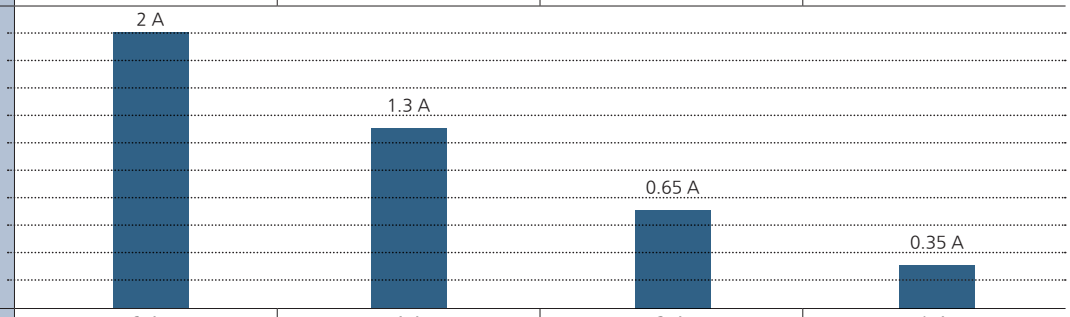
Product name			HF DIP							
Contact configuration			1 Form A							
Number of terminals			6–pin							
Number of terminals *Standoff height included										
Features			DIP6–pin type with wide variation Low on–resistance							
Part No.			AQV101	AQV102	AQV103	AQV104	AQV201	AQV202	AQV203	AQV204
Output	Load type		DC				AC/DC			
	Load voltage	Peak AC	—				40 V	60 V	250 V	400 V
		DC	40 V	60 V	250 V	400 V	40 V	60 V	250 V	400 V
	Continuous load current *6–pin type: in case of A connection									
	Peak load current		1.8 A	1.5 A	0.6 A	0.5 A	1.8 A	1.5 A	0.6 A	0.5 A
	Power dissipation		360 mW				360 mW			
	On resistance *6–pin type: in case of A connection	Typ.	0.3 Ω	0.37 Ω	2.7 Ω	6.3 Ω	0.6 Ω	0.74 Ω	5.5 Ω	12.4 Ω
		Max.	0.5 Ω	0.7 Ω	4 Ω	8 Ω	1 Ω	1.4 Ω	8 Ω	16 Ω
	Output capacitance (Typ.)		600 pF		300 pF		350 pF		170 pF	
	Off state leakage current (Max.)		1 μA							
Input	LED forward current		50 mA							
	LED reverse voltage		10 V							
	Peak forward current		1 A							
	Power dissipation		150 mW							
	LED operate current	Typ.	2.3 mA				2.4 mA			
		Max.	5 mA				5 mA			
	LED turn off current	Min.	0.8 mA							
		Typ.	2.2 mA							
	LED dropout voltage	Typ.	2.3 V							
		Max.	3 V							
Turn on time		Typ.	0.23 ms	0.22 ms	0.13 ms	0.09 ms	0.38 ms	0.41 ms	0.21 ms	0.18 ms
		Max.	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms
Turn off time		Typ.	0.07 ms			0.08 ms			0.07 ms	
		Max.	1 ms			1 ms			1 ms	
Total Power dissipation			410 mW							
I/O isolation voltage			1,500 Vrms							
I/O capacitance		Typ.	1.3 pF							
		Max.	3 pF							
Initial I/O isolation resistance (Min.)			1,000 MΩ							
Safety standards			UL							
Mass (weight) (approx.)			0.453 g							

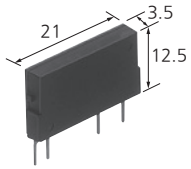
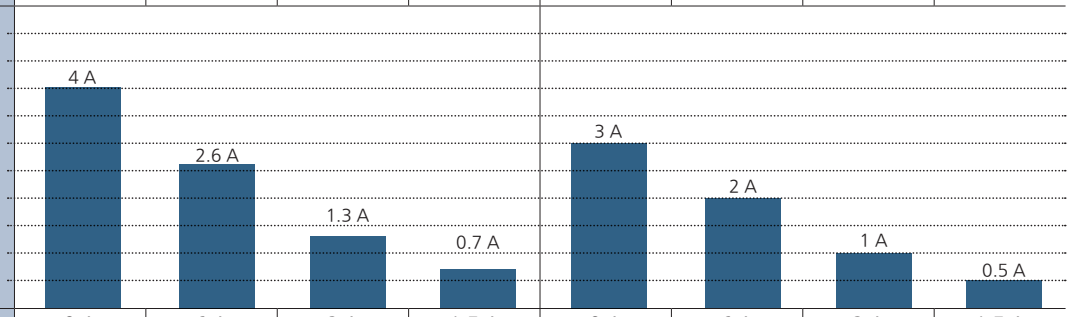
Product name			HF DIP
Contact configuration			1 Form A
Number of terminals			6–pin
Number of terminals *Standoff height included			
Features			DIP–6pin type with 1,200 V load voltage and low on resistance (Typ. 1 Ω)
Part No.			AQV209G
Output	Load type		AC/DC
	Load voltage	Peak AC	1,200 V
		DC	1,200 V
	Continuous load current *6–pin type: in case of A connection		
	Peak load current		2.25 A
	Power dissipation		600 mW
	On resistance *6–pin type: in case of A connection	Typ.	1 Ω
		Max.	2 Ω
	Output capacitance (Typ.)		330 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		30 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		120 mW
	LED operate current	Typ.	0.16 mA
		Max.	3 mA
	LED turn off current	Min.	0.01 mA
		Typ.	0.05 mA
	LED dropout voltage	Typ.	2.95 V (3.23 V at I_F = 30 mA)
		Max.	3.4 V
Turn on time		Typ.	0.5 ms
		Max.	1 ms
Turn off time		Typ.	0.05 ms
		Max.	0.5 ms
Total Power dissipation			650 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	1.3 pF
		Max.	3 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.47 g

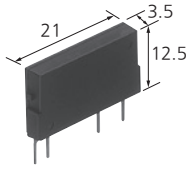
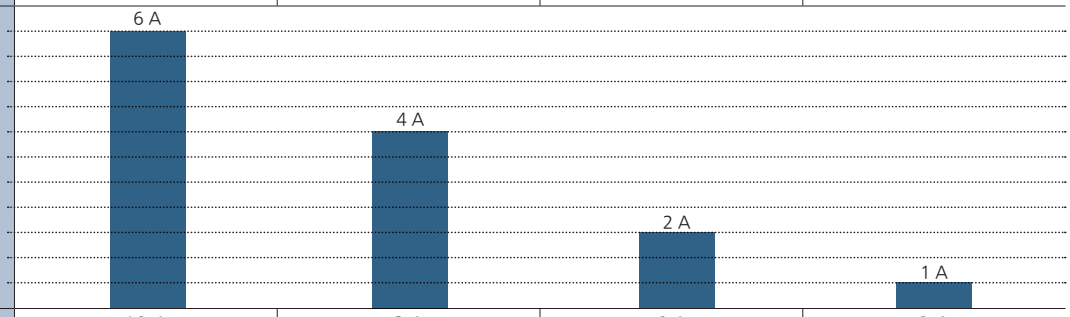
Product name			HS WSSOP Low C × R
Contact configuration			1 Form A
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			High temperature performance and excellent high frequency characteristics in new miniature package
Part No.			AQY231R1W
Output	Load type		AC/DC
	Load voltage	Peak AC	40 V
		DC	40 V
	Continuous load current		
	Peak load current		1 A
	Power dissipation		250 mW
	On resistance	Typ.	0.75 Ω
		Max.	1.25 Ω
	Output capacitance (Typ.)		16 pF
	Off state leakage current (Max.)		10 nA
Input	LED forward current		30 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		60 mW
	LED operate current	Typ.	0.15 mA
		Max.	1 mA
	LED turn off current	Min.	0.01 mA
		Typ.	0.15 mA
	LED dropout voltage	Typ.	1.41 V (1.62 V at I_F = 30 mA)
		Max.	1.7 V
Turn on time		Typ.	0.025 ms
		Max.	0.1 ms
Turn off time		Typ.	0.015 ms
		Max.	0.1 ms
Total Power dissipation			300 mW
I/O isolation voltage			500 Vrms
I/O capacitance		Typ.	0.4 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			—
Safety standards			—
Mass (weight) (approx.)			0.013 g

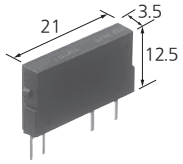
Product name			HS SOP			
Contact configuration			1 Form A			
Number of terminals			4-pin			
Number of terminals *Standoff height included						
Features			Recommended LED forward current 2 mA, High Sensitivity (Low current–consumption) Miniature SOP4–pin Type			
Part No.			AQY232G3HS	AQY232S	AQY230S	AQY234S
Output	Load type		AC/DC			
	Load voltage	Peak AC	60 V	60 V	350 V	400 V
		DC	60 V	60 V	350 V	400 V
	Continuous load current					
	Peak load current		6 A	1.5 A	0.3 A	0.24 A
	Power dissipation		480 mW	300 mW		
	On resistance	Typ.	0.07 Ω	0.85 Ω	19 Ω	27 Ω
		Max.	0.12 Ω	2.5 Ω	25 Ω	35 Ω
	Output capacitance (Typ.)		230 pF	80 pF	32 pF	35 pF
	Off state leakage current (Max.)		1 μA			
Input	LED forward current		30 mA	50 mA		
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		60 mW	75 mW		
	LED operate current	Typ.	0.13 mA	0.35 mA		
		Max.	1 mA	0.5 mA		
	LED turn off current	Min.	0.01 mA	0.1 mA		
		Typ.	0.1 mA	0.3 mA		
	LED dropout voltage	Typ.	1.41 V (1.62 V at I_F = 30 mA)	1.25 V (1.1 V at I_F = 2 mA)		
		Max.	1.7 V	1.5 V		
Turn on time		Typ.	0.8 ms	1.5 ms	1.2 ms	0.8 ms
		Max.	3 ms	5 ms	5 ms	5 ms
Turn off time		Typ.	0.06 ms	0.15 ms	0.1 ms	0.1 ms
		Max.	0.5 ms	2 ms	2 ms	2 ms
Total Power dissipation			530 mW	350 mW		
I/O isolation voltage			3,750 Vrms	1,500 Vrms		
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			—	UL, VDE		
Mass (weight) (approx.)			0.09 g	0.084 g		

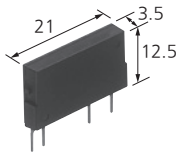
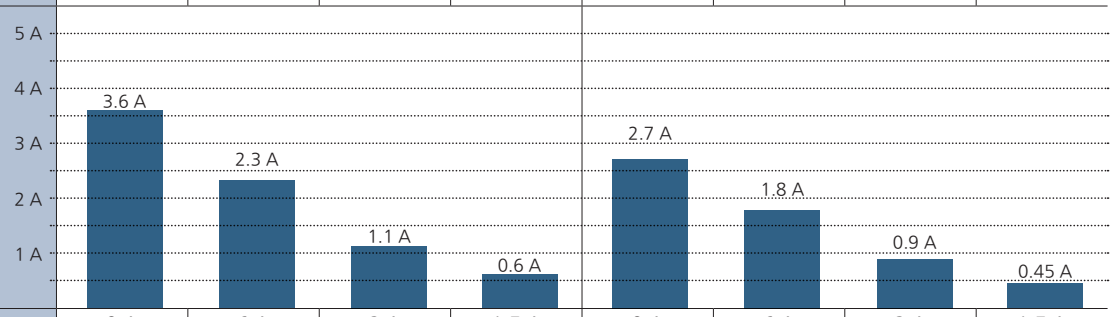
Product name			HS DIP
Contact configuration			1 Form A
Number of terminals			6–pin
Number of terminals *Standoff height included			
Features			DIP6–pin type featuring high sensitivity
Part No.			AQV234
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current *6–pin type: in case of A connection	1 A	
		0.5 A	
		0.12 A	
	Peak load current		0.3 A
	Power dissipation		500 mW
	On resistance *6–pin type: in case of A connection	Typ.	30 Ω
		Max.	50 Ω
	Output capacitance (Typ.)		45 pF
	Off state leakage current (Max.)		1 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	0.31 mA
		Max.	0.5 mA
	LED turn off current	Min.	0.1 mA
		Typ.	0.29 mA
	LED dropout voltage	Typ.	1.25 V (1.1 V at I_F = 2 mA)
		Max.	1.5 V
Turn on time		Typ.	0.89 ms
		Max.	2 ms
Turn off time		Typ.	0.22 ms
		Max.	1 ms
Total Power dissipation			550 mW
I/O isolation voltage			1,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL
Mass (weight) (approx.)			0.453 g

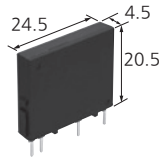
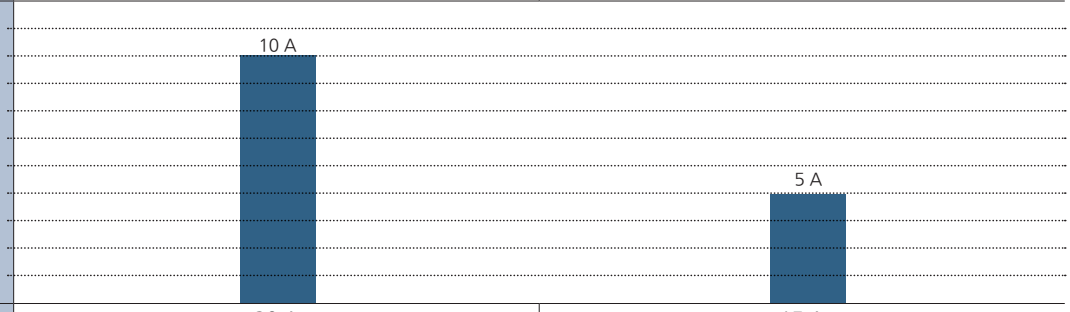
Product name			PD DIP			
Contact configuration			1 Form A			
Number of terminals			4–pin			
Number of terminals *Standoff height included						
Features			Flat Power–DIP4–pin type with high capacity up to Max. 2 A in the series			
Part No.			AQY272	AQY275	AQY277	AQY274
Output	Load type		AC/DC			
	Load voltage	Peak AC	60 V	100 V	200 V	400 V
		DC	60 V	100 V	200 V	400 V
	Continuous load current					
	Peak load current		6 A	4 A	2 A	1 A
	Power dissipation		700 mW			
	On resistance	Typ.	0.11 Ω	0.23 Ω	0.7 Ω	2.1 Ω
		Max.	0.18 Ω	0.34 Ω	1.1 Ω	3.2 Ω
	Output capacitance (Typ.)		1,400 pF		600 pF	
	Off state leakage current (Max.)		10 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	1 mA			
		Max.	3 mA			
	LED turn off current	Min.	0.4 mA			
		Typ.	0.9 mA			
	LED dropout voltage	Typ.	1.25 V (1.16 V at I_F = 10 mA)			
		Max.	1.5 V			
Turn on time		Typ.	2.46 ms	2.4 ms	1.12 ms	1.65 ms
		Max.	5 ms	5 ms	5 ms	5 ms
Turn off time		Typ.	0.22 ms	0.21 ms	0.1 ms	0.08 ms
		Max.	3 ms	3 ms	3 ms	3 ms
Total Power dissipation			750 mW			
I/O isolation voltage			2,500 Vrms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE			
Mass (weight) (approx.)			0.62 g			

Product name			Power SIL							
Contact configuration			1 Form A							
Number of terminals			4–pin							
Number of terminals *Standoff height included										
Features			Slim type with high capacity up to 4 A DC load type also available							
Part No.			AQZ102	AQZ105	AQZ107	AQZ104	AQZ202	AQZ205	AQZ207	AQZ204
Output	Load type		DC				AC/DC			
	Load voltage	Peak AC	—				60 V	100 V	200 V	400 V
		DC	60 V	100 V	200 V	400 V	60 V	100 V	200 V	400 V
	Continuous load current									
	Peak load current		9 A	6 A	3 A	1.5 A	9 A	6 A	3 A	1.5 A
	Power dissipation		1.35 W				1.6 W			
	On resistance	Typ.	0.05 Ω	0.081 Ω	0.34 Ω	1.06 Ω	0.11 Ω	0.23 Ω	0.7 Ω	2.1 Ω
		Max.	0.09 Ω	0.17 Ω	0.55 Ω	1.6 Ω	0.18 Ω	0.34 Ω	1.1 Ω	3.2 Ω
	Output capacitance (Typ.)		1,700 pF		900 pF		1,400 pF		600 pF	
	Off state leakage current (Max.)		10 μA							
Input	LED forward current		50 mA							
	LED reverse voltage		5 V							
	Peak forward current		1 A							
	Power dissipation		75 mW							
	LED operate current	Typ.	1 mA							
		Max.	3 mA							
	LED turn off current	Min.	0.4 mA							
		Typ.	0.9 mA							
	LED dropout voltage	Typ.	1.25 V (1.16 V at I_F = 10 mA)							
		Max.	1.5 V							
Turn on time		Typ.	1.66 ms	1.89 ms	0.83 ms	1.01 ms	2.46 ms	2.4 ms	1.12 ms	1.65 ms
		Max.	5 ms	5 ms	5 ms	5 ms	5 ms	5 ms	5 ms	5 ms
Turn off time		Typ.	0.15 ms	0.19 ms	0.08 ms	0.08 ms	0.22 ms	0.21 ms	0.1 ms	0.08 ms
		Max.	3 ms	3 ms	3 ms	3 ms	3 ms	3 ms	3 ms	3 ms
Total Power dissipation			1.35 W				1.6 W			
I/O isolation voltage			2,500 Vrms							
I/O capacitance		Typ.	0.8 pF							
		Max.	1.5 pF							
Initial I/O isolation resistance (Min.)			1,000 MΩ							
Safety standards			UL, VDE							
Mass (weight) (approx.)			1.65 g							

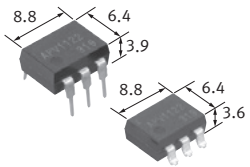
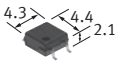
Product name			Power SIL			
Contact configuration			1 Form A			
Number of terminals			4–pin			
Number of terminals *Standoff height included						
Features			High capacity up to Max. 6 A in the series with a slim SIL package			
Part No.			AQZ202G	AQZ205G	AQZ207G	AQZ206G2
Output	Load type		AC/DC			
	Load voltage	Peak AC	60 V	100 V	200 V	600 V
		DC	60 V	100 V	200 V	600 V
	Continuous load current					
	Peak load current		12 A	8 A	6 A	3 A
	Power dissipation		1.6W			
	On resistance	Typ.	0.015 Ω	0.035 Ω	0.18 Ω	0.52 Ω
		Max.	0.03 Ω	0.06 Ω	0.35 Ω	0.8 Ω
	Output capacitance (Typ.)		1,600 pF	1,240 pF	700 pF	3,000 pF
	Off state leakage current (Max.)		10 μA			
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	1 mA			
		Max.	3 mA			
	LED turn off current	Min.	0.4 mA			
		Typ.	0.9 mA			
	LED dropout voltage	Typ.	1.25 V (1.16 V at I_F = 10 mA)			
		Max.	1.5 V			
Turn on time		Typ.	3.8 ms	5. ms	2.5 ms	3 ms
		Max.	10 ms	10 ms	10 ms	10 ms
Turn off time		Typ.	0.2 ms	0.3 ms	0.2 ms	0.2 ms
		Max.	3 ms	3 ms	3 ms	3 ms
Total Power dissipation			1.6 W			
I/O isolation voltage			2,500 Vrms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
Safety standards			UL, VDE			
Mass (weight) (approx.)			1.65 g			

Product name			Power SIL
Contact configuration			1 Form B
Number of terminals			4–pin
Number of terminals *Standoff height included			
Features			Normally closed type in a slim SIL package Load voltage 400 V
Part No.			AQZ404
Output	Load type		AC/DC
	Load voltage	Peak AC	400 V
		DC	400 V
	Continuous load current	5 A 4 A 3 A 2 A 1 A 0.5 A	
	Peak load current		1.5 A
	Power dissipation		1.6 W
	On resistance	Typ.	2.8 Ω
		Max.	4 Ω
	Output capacitance (Typ.)		2,000 pF
	Off state leakage current (Max.)		10 μA
Input	LED forward current		50 mA
	LED reverse voltage		5 V
	Peak forward current		1 A
	Power dissipation		75 mW
	LED operate current	Typ.	1 mA
		Max.	3 mA
	LED turn off current	Min.	0.4 mA
		Typ.	0.9 mA
	LED dropout voltage	Typ.	1.25 V (1.16 V at I_F = 10 mA)
		Max.	1.5 V
Turn on time		Typ.	3.9 ms
		Max.	7.5 ms
Turn off time		Typ.	0.8 ms
		Max.	3 ms
Total Power dissipation			1.6 W
I/O isolation voltage			2,500 Vrms
I/O capacitance		Typ.	0.8 pF
		Max.	1.5 pF
Initial I/O isolation resistance (Min.)			1,000 MΩ
Safety standards			UL, VDE
Mass (weight) (approx.)			1.65 g

Product name			Power SIL Voltage–sensitive							
Contact configuration			1 Form A							
Number of terminals			4–pin							
Number of terminals *Standoff height included										
Features			Slim and high capacity up to 3.6 A Voltage–driven type							
Part No.			AQZ102D	AQZ105D	AQZ107D	AQZ104D	AQZ202D	AQZ205D	AQZ207D	AQZ204D
Output	Load type		DC				AC/DC			
	Load voltage	Peak AC	–				60 V	100 V	200 V	400 V
		DC	60 V	100 V	200 V	400 V	60 V	100 V	200 V	400 V
	Continuous load current									
	Peak load current		9 A	6 A	3 A	1.5 A	9 A	6 A	3 A	1.5 A
	Power dissipation		1.35 W				1.6 W			
	On resistance	Typ.	0.033 Ω	0.09 Ω	0.33 Ω	1.23 Ω	0.066 Ω	0.18 Ω	0.64 Ω	2.4 Ω
		Max.	0.09 Ω	0.17 Ω	0.55 Ω	1.6 Ω	0.18 Ω	0.34 Ω	1.1 Ω	3.2 Ω
	Output capacitance (Typ.)		1,700 pF		900 pF		1,400 pF		600 pF	
	Off state leakage current (Max.)		10 μA							
Input	LED forward current		Input voltage : 30 V							
	LED reverse voltage		Input reverse voltage: 5 V							
	Peak forward current		–							
	Power dissipation		300 mW							
	LED operate current	Typ.	Operate voltage : 1.4 V							
		Max.	Operate voltage : 4 V							
	LED turn off current	Min.	Turn off voltage : 0.8 V							
		Typ.	Turn off voltage : 1.3 V							
	LED dropout voltage	Typ.	Input current (Typ.) : 6.5 mA							
		Max.								
Turn on time		Typ.	3.3 ms	2.2 ms	1.5 ms	1.2 ms	5.8 ms	4.2 ms	2.7 ms	2.3 ms
		Max.	10 ms							
Turn off time		Typ.	0.2 ms		0.1 ms		0.2 ms		0.1 ms	
		Max.	3 ms							
Total Power dissipation			1.35 W				1.6 W			
I/O isolation voltage			2,500 Vrms							
I/O capacitance		Typ.	0.8 pF							
		Max.	1.5 pF							
Initial I/O isolation resistance (Min.)			1,000 MΩ							
Safety standards			UL, VDE							
Mass (weight) (approx.)			1.65 g							

Product name			Power SIL	
Contact configuration			1 Form A	
Number of terminals			4–pin	
Number of terminals *Standoff height included				
Features			High capacity up to Max. DC10 A in the series with a slim SIL package	
Part No.			AQZ192	AQZ197
Output	Load type		DC	
	Load voltage	Peak AC	—	—
		DC	60 V	200 V
	Continuous load current			
	Peak load current		30 A	15 A
	Power dissipation		2 W	
	On resistance	Typ.	0.008 Ω	0.031 Ω
		Max.	0.015 Ω	0.05 Ω
	Output capacitance (Typ.)		2,100 pF	2,600 pF
	Off state leakage current (Max.)		10 μA	
Input	LED forward current		50 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		75 mW	
	LED operate current	Typ.	0.7 mA	
		Max.	3 mA	
	LED turn off current	Min.	0.2 mA	
		Typ.	0.5 mA	
	LED dropout voltage	Typ.	1.35 V (1.17 V at I_F = 10 mA)	
		Max.	1.5 V	
Turn on time		Typ.	1 ms	0.7 ms
		Max.	3 ms	3 ms
Turn off time		Typ.	0.11 ms	0.05 ms
		Max.	1 ms	1 ms
Total Power dissipation			2 W	
I/O isolation voltage			3,000 Vrms	
I/O capacitance		Typ.	1.3 pF	
		Max.	3 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
Safety standards			UL, VDE	
Mass (weight) (approx.)			4.3 g	

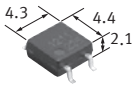
Photovoltaic MOSFET Drivers Selector Chart

Product name			Photovoltaic MOSFET drivers			
Number of terminals			DIP 6–pin	SOP 4–pin		SSOP 4–pin
Appearance configuration *Standoff height included, Unit: mm						
Features			Photovoltaic MOSFET drivers of wide variation			
Part No.			APV1122	APV1121S	APV2121S	APV2111VY
Output	Open voltage	Min.	6 V		5 V	
		Typ.	8.7 V		8.2 V	
	Short current	Min.	5 µA		3 µA	
		Typ.	14 µA		8 µA	
Input	LED forward current		50 mA			
	LED reverse voltage		5 V			
	Peak forward current		1 A			
	Power dissipation		75 mW			
	LED operate current	Typ.	0.6 mA		0.85 mA	
		Max.	3 mA			
	LED turn off current	Min.	0.2 mA			
		Typ.	0.5 mA		0.75 mA	
	LED dropout voltage	Typ.	1.15 V			
		Max.	1.5 V			
Turn on time		Typ.	0.4 ms		0.8 ms	
Turn off time		Typ.	0.1 ms			
I/O capacitance		Typ.	0.8 pF			
		Max.	1.5 pF			
Initial I/O isolation resistance (Min.)			1,000 MΩ			
I/O isolation voltage			5,000 Vrms	2,500 Vrms	2,500 Vrms	1,500 Vrms
Safety standards			UL, VDE			UL
Mass (weight) (approx.)			0.45 g	0.08 g		0.06 g

Photovoltaic MOSFET Drivers Selector Chart

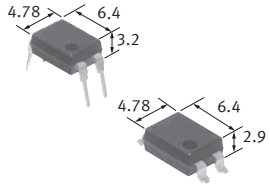
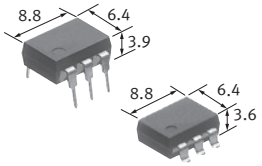
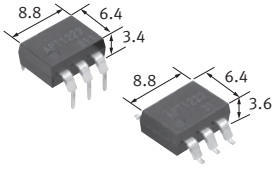
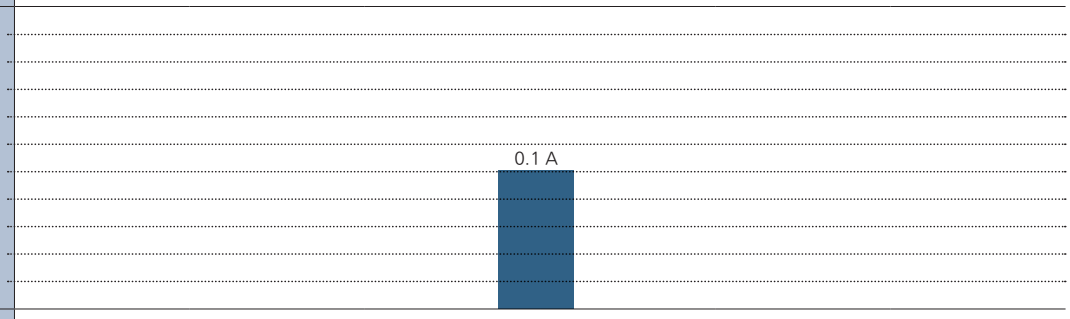
Product name			Photovoltaic MOSFET driver high power type	
Number of terminals			SSOP 4–pin	
Appearance configuration *Standoff height included, Unit: mm				
Features			MOSFET drivers for high–speed and low on–resistance	
Part No.			APV1111GVY	APV3111GVY
Output	Open voltage	Min.	6 V	15 V
		Typ.	8.5 V	18 V
	Short current	Min.	25 µA	5 µA
		Typ.	45 µA	12 µA
Input	LED forward current		30 mA	
	LED reverse voltage		5 V	
	Peak forward current		1 A	
	Power dissipation		60 mW	
	LED operate current	Typ.	—	
		Max.	—	
	LED turn off current	Min.	—	
		Typ.	—	
	LED dropout voltage	Typ.	1.47 V	
		Max.	1.7 V	
Turn on time		Typ.	0.1 ms	0.4 ms
Turn off time		Typ.	0.1 ms	0.04 ms
I/O capacitance		Typ.	0.8 pF	
		Max.	1.5 pF	
Initial I/O isolation resistance (Min.)			1,000 MΩ	
I/O isolation voltage			1,500 Vrms	
Safety standards			UL	
Mass (weight) (approx.)			0.06 g	

Phototriac Coupler Selector Chart

Product name		APT Phototriac Coupler	
Type		Zero–cross	Random
Number of terminals		SOP 4–pin	
Type		0.05 A	
Appearance configuration *Standoff height included (mm)			
Features		Phototriac coupler ideal for triac driver with wide variation	
Part No.		APT1211S	APT1221S
Output	Repetitive peak OFF–state voltage	600 V	
	ON–state RMS current 0.2 A		
	ON–state RMS current 0.1 A		
	ON–state RMS current 0.05 A		
	Non–repetitive surge current	0.6 A	
	Peak ON–state voltage	Max. 2.5 V	
	Peak OFF–state current	Max. 1 μA	
Input	LED forward current	50 mA	
	LED reverse voltage	6 V	
	Peak forward current	1 A	
	LED dropout voltage (I_F = 20 mA)	Max. 1.3 V	
Trigger LED current		Max. 0.1 ms	
Zero–cross voltage		Max. 50 V	–
Turn on time		Max. 0.1 ms	
I/O isolation voltage		3,750 Vrms	
I/O isolation resistance		Min. 50 GΩ	
Safety standards		UL/C–UL, VDE*	
Mass (weight) (approx.)		0.08 g	

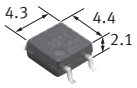
* Normal part number is taken UL/C–ULstandards. About VDE standard, please contact our sales representative.

Phototriac Coupler Selector Chart

Product name		APT Phototriac Coupler					
Type		Zero–cross	Random	Zero–cross	Random	Zero–cross	Random
Number of terminals		DIP 4–pin		DIP 6–pin		DIP 6–pin wide	
Type		0.1 A					
Appearance configuration *Standoff height included (mm)							
Features		Phototriac coupler ideal for triac driver with wide variation					
Part No.		APT1211	APT1221	APT1212	APT1222	APT1212W	APT1222W
Output	Repetitive peak OFF–state voltage	600 V					
	ON–state RMS current (0.2 A / 0.1 A)						
	Non–repetitive surge current	1.2 A					
	Peak ON–state voltage	Max. 2.5 V					
	Peak OFF–state current	Max. 1 μA					
Input	LED forward current	50 mA					
	LED reverse voltage	6 V					
	Peak forward current	1 A					
	LED dropout voltage (I_F = 20 mA)	Max. 1.3 V					
Trigger LED current		Max. 10 mA					
Zero–cross voltage		Max. 50 V	–	Max. 50 V	–	Max. 50 V	–
Turn on time		Max. 0.1 ms					
I/O isolation voltage		5,000 Vrms					
I/O isolation resistance		Min. 50 GΩ					
Safety standards		UL/C–UL, VDE*					
Mass (weight) (approx.)		0.19 g		0.45 g		0.45 g	

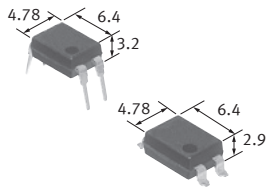
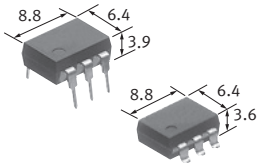
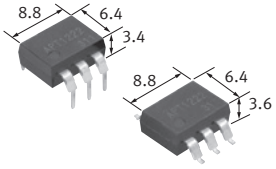
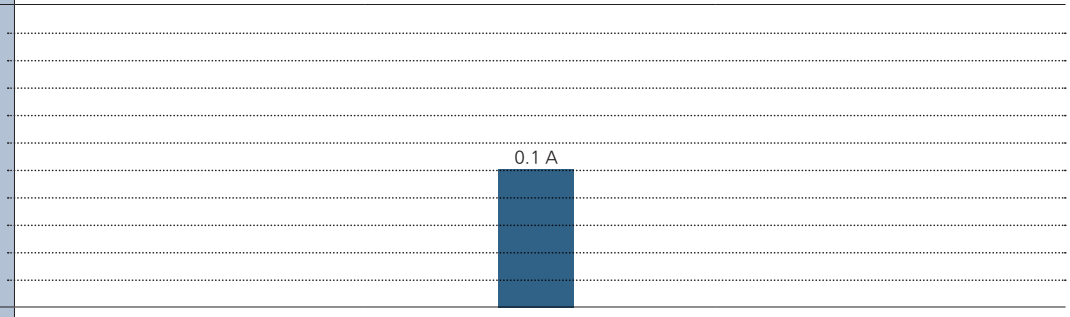
* Normal part number is taken UL/C–ULstandards. About VDE standard, please contact our sales representative.

Phototriac Coupler Selector Chart

Product name			APT Phototriac Coupler
Type			Zero–cross (Low zero–cross type)
Number of terminals			SOP 4–pin
Type			0.05 A
Appearance configuration *Standoff height included (mm)			
Features			Phototriac coupler ideal for triac driver with wide variation
Part No.			APT1231S
Output	Repetitive peak OFF–state voltage		600 V
	ON–state RMS current	0.2 A	
		0.1 A	
		0.05 A	
	Non–repetitive surge current		0.6 A
	Peak ON–state voltage		Max. 2.0 V
	Peak OFF–state current		Max. 1 μA
Input	LED forward current		50 mA
	LED reverse voltage		6 V
	Peak forward current		1 A
	LED dropout voltage (I_F = 20 mA)		Max. 1.3 V
Trigger LED current			Max. 10 mA
Zero–cross voltage			Max. 15 V
Turn on time			Max. 0.1 ms
I/O isolation voltage			3,750 Vrms
I/O isolation resistance			Min. 50 GΩ
Safety standards			UL/C–UL, VDE*
Mass (weight) (approx.)			0.08 g

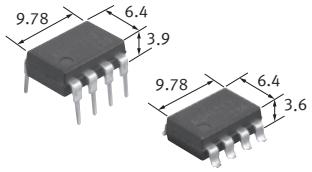
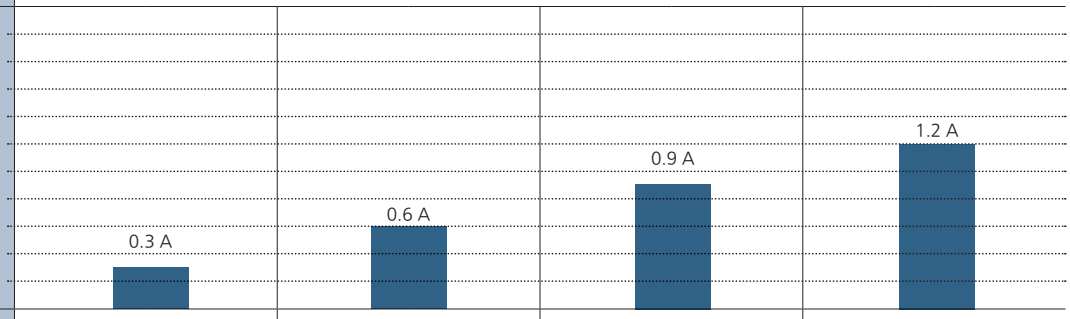
* Normal part number is taken UL/C–ULstandards. About VDE standard, please contact our sales representative.

Phototriac Coupler Selector Chart

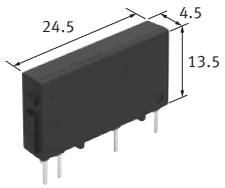
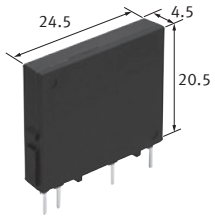
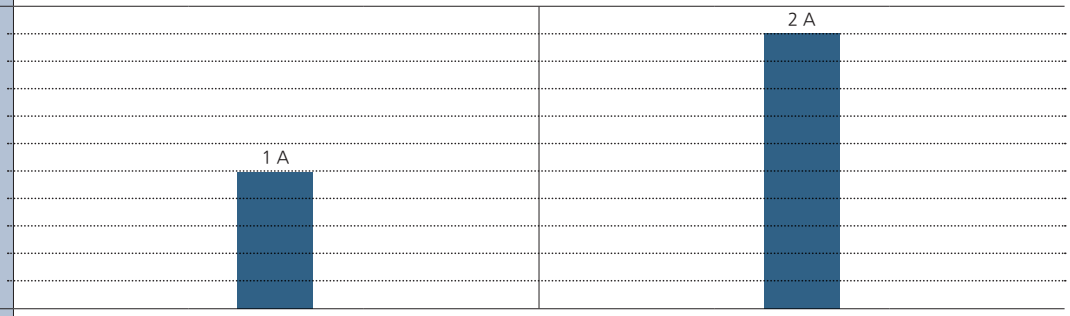
Product name		APT Phototriac Coupler		
Type		Zero–cross (Low zero–cross type)		
Number of terminals		DIP 4–pin	DIP 6–pin	DIP 6–pin wide
Type		0.1 A		
Appearance configuration *Standoff height included (mm)				
Features		Phototriac coupler ideal for triac driver with wide variation		
Part No.		APT1231	APT1232	APT1232W
Output	Repetitive peak OFF–state voltage	600 V		
Output	ON–state RMS current (0.2 A / 0.1 A)			
Output	Non–repetitive surge current	1.2 A		
Output	Peak ON–state voltage	Max. 2.0 V		
Output	Peak OFF–state current	Max. 1 μA		
Input	LED forward current	50 mA		
Input	LED reverse voltage	6 V		
Input	Peak forward current	1 A		
Input	LED dropout voltage (I_F = 20 mA)	Max. 1.3 V		
Trigger LED current		Max. 10 mA		
Zero–cross voltage		Max. 15 V		
Turn on time		Max. 0.1 ms		
I/O isolation voltage		5,000 Vrms		
I/O isolation resistance		Min. 50 GΩ		
Safety standards		UL/C–UL, VDE*		
Mass (weight) (approx.)		0.19 g	0.45 g	0.45 g

* Normal part number is taken UL/C–ULstandards. About VDE standard, please contact our sales representative.

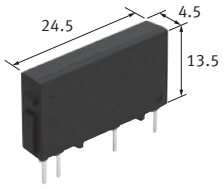
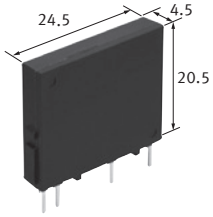
Solid State Relays Selector Chart

Product name	AQ–H Relays							
Type	Zero–cross	Random	Zero–cross	Random	Zero–cross	Random	Zero–cross	Random
Number of terminals	DIP 8–pin							
Type	0.3 A		0.6 A		0.9 A		1.2 A	
Appearance configuration *Standoff height included (mm)								
Features	Compact DIP type SSR Ideal for AC load control							
Part No.	AQH0213	AQH0223	AQH1213	AQH1223	AQH2213	AQH2223	AQH3213	AQH3223
Output: Repetitive peak OFF–state voltage	600 V							
Output: ON–state RNS current								
Output: Non–repetitive surge current	3 A		6 A		9 A		12 A	
Output: Peak ON–state voltage	Max. 2.5 V							
Output: Peak OFF–state current	Max. 100 µA							
Input: LED forward current	50 mA							
Input: LED reverse voltage	6 V							
Input: Peak forward current	1 A							
Input: LED dropout voltage (I_F = 20 mA)	Max. 1.3 V							
Trigger LED current	Max. 10 mA							
Zero–cross voltage	Max. 50 V	–	Max. 50 V	–	Max. 50 V	–	Max. 50 V	–
Turn on time	Max. 0.1 ms							
I/O isolation voltage	5,000 Vrms							
I/O capacitance, Typ.	2.1 pF							
I/O isolation resistance	Min. 50 GΩ							
Safety standards	UL/C–UL, VDE							
Mass (weight) (approx.)	0.56 g							

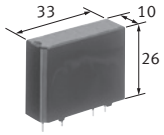
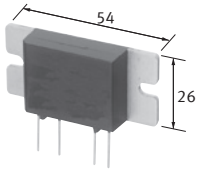
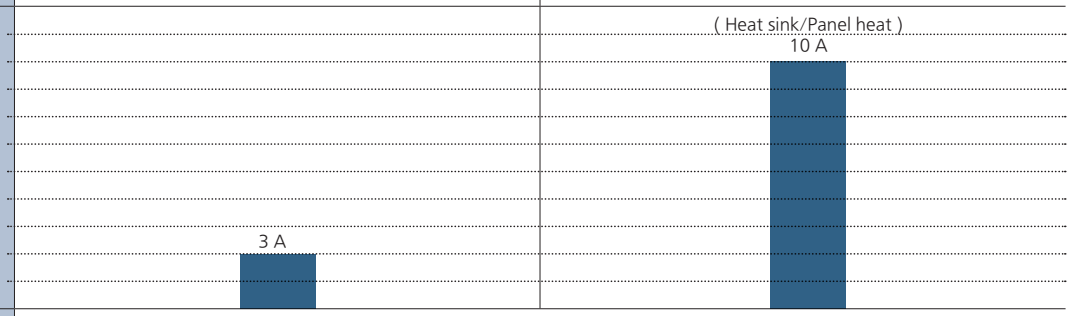
Solid State Relays Selector Chart

Product name			AQ–G Relays					
Type			Zero–cross					
Number of terminals			4–pin					
Type			1 A			2 A		
Appearance configuration *Standoff height included (mm)								
Features			Slim type SSR for 1 A and 2 A control					
Part No.			AQG12105	AQG12112	AQG12124	AQG22105	AQG22112	AQG22124
Load side	Load voltage	AC	75 to 264 Vrms					
		DC	–					
	Max. load current	2 A 1 A						
	Off state leakage current, max.		1.5 mA (applied 200 V)					
	Non–repetitive surge current		8 A			30 A		
Input side	Control voltage		4 to 6 V	9.6 to 14.4 V	19.2 to 28.8 V	4 to 6 V	9.6 to 14.4 V	19.2 to 28.8 V
	Input impedance, approx.		0.3 kΩ	0.8 kΩ	1.6 kΩ	0.3 kΩ	0.8 kΩ	1.6 kΩ
	Drop–out voltage, min.		1 V					
Operate time, max.			1/2 cycle of voltage sine wave +1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			UL/C–UL, VDE					
Mass (weight) (approx.)			2.7 g			4.3 g		

Solid State Relays Selector Chart

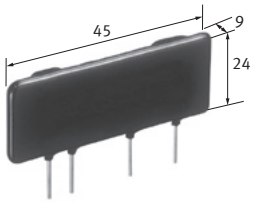
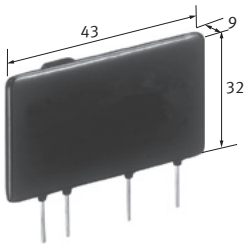
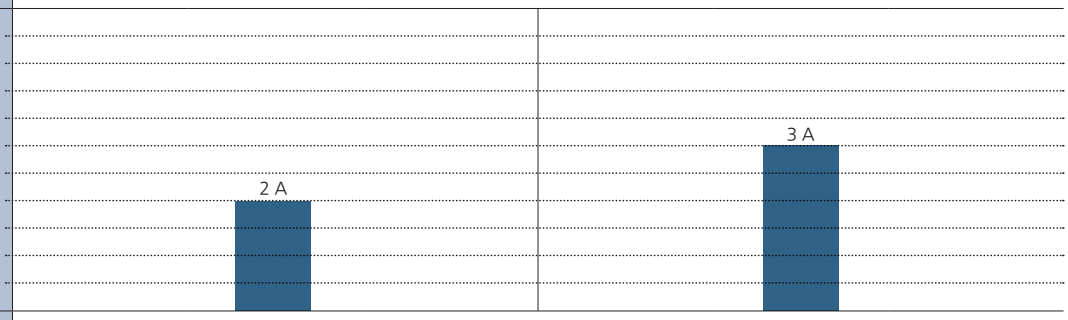
Product name			AQ–G Relays					
Type			Random					
Number of terminals			4–pin					
Type			1 A			2 A		
Appearance configuration *Standoff height included (mm)								
Features			Slim type SSR for 1 A and 2 A control					
Part No.			AQG12205	AQG12212	AQG12224	AQG22205	AQG22212	AQG22224
Load side	Load voltage	AC	75 to 264 Vrms					
		DC	–					
	Max. load current	2 A 1 A						
	Off state leakage current, max.		1.5 mA (applied 200 V)					
	Non–repetitive surge current		8 A			30 A		
Input side	Control voltage		4 to 6 V	9.6 to 14.4 V	19.2 to 28.8 V	4 to 6 V	9.6 to 14.4 V	19.2 to 28.8 V
	Input impedance, approx.		0.3 kΩ	0.8 kΩ	1.6 kΩ	0.3 kΩ	0.8 kΩ	1.6 kΩ
	Drop–out voltage, min.		1 V					
Operate time, max.			1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			UL/C–UL, VDE					
Mass (weight) (approx.)			2.7 g			4.3 g		

Solid State Relays Selector Chart

Product name			AQ1 Relays	
Type			Zero–cross*	
Number of terminals			4–pin	
Type			3 A	10 A
Appearance configuration *Standoff height included (mm)				
Features			High capacity up to 3 A/10 A PC board terminal type	
Part No.			AQ1298	AQ1208
Load side	Load voltage	AC	75 to 250 Vrms	
		DC	–	–
	Max. load current			
	Off state leakage current, max.		5 mA	
	Non–repetitive surge current		100 A	
Input side	Control voltage		4 to 32 V DC	
	Input impedance, approx.		–	
	Drop–out voltage, min.		1.0 V	
Operate time, max.			1/2 cycle of voltage sine wave +1 ms	
Release time, max.			1/2 cycle of voltage sine wave +1 ms	
Breakdown voltage			4,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)	
Snubber circuit integrated			●	
LED operation indicator			–	
Safety standards			UL/C–UL, VDE	
Mass (weight) (approx.)			19 g	26 g

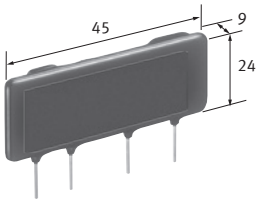
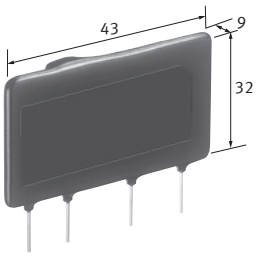
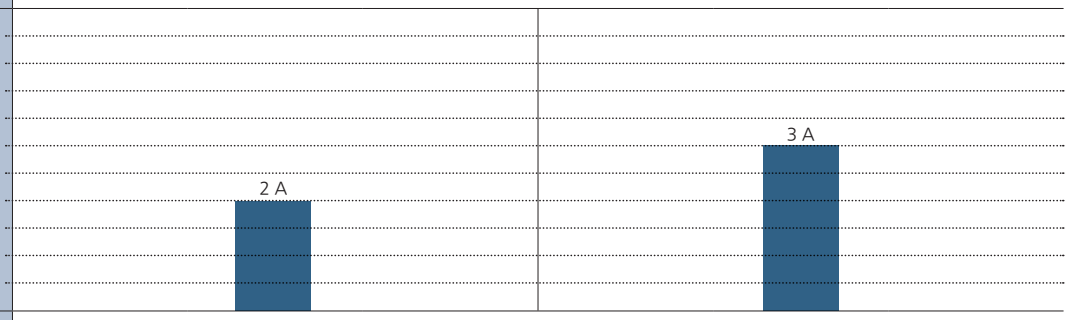
* Random type is also available by custom order.

Solid State Relays Selector Chart

Product name			AQ8 Relays					
Type			Zero–cross					
Number of terminals			4–pin					
Type			2 A			3 A		
Appearance configuration *Standoff height included (mm)								
Features			SIL type with 9 mm thickness, 3,000 V AC high dielectric voltage, controls up to 2 A/3 A					
Part No.	Input terminal distance: 5.08 mm		AQ80139	AQ80133	AQ80134	AQ80159	AQ80153	AQ80154
	Input terminal distance: 7.62 mm		AQ81139	AQ81133	AQ81134	AQ81159	AQ81153	AQ81154
Load side	Load voltage	AC	75 to 250 Vrms					
		DC	–					
	Max. load current							
	Off state leakage current, max.		5 mA					
	Non–repetitive surge current		30 A			80 A		
Input side	Control voltage		4 to 6 V	9.6 to 14.4 V	21.6 to 26.4 V	4 to 6 V	9.6 to 14.4 V	21.6 to 26.4 V
	Input impedance, approx.		0.18 kΩ	0.55 kΩ	1.4 kΩ	0.18 kΩ	0.55 kΩ	1.4 kΩ
	Drop–out voltage, min.		0.5 V	1.2 V	2.4 V	0.5 V	1.2 V	2.4 V
Operate time, max.			1/2 cycle of voltage sine wave +1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			UL/C–UL, VDE*					
Mass (weight) (approx.)			6.8 g			9.8 g		

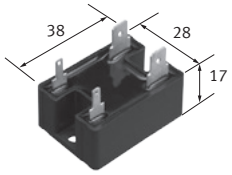
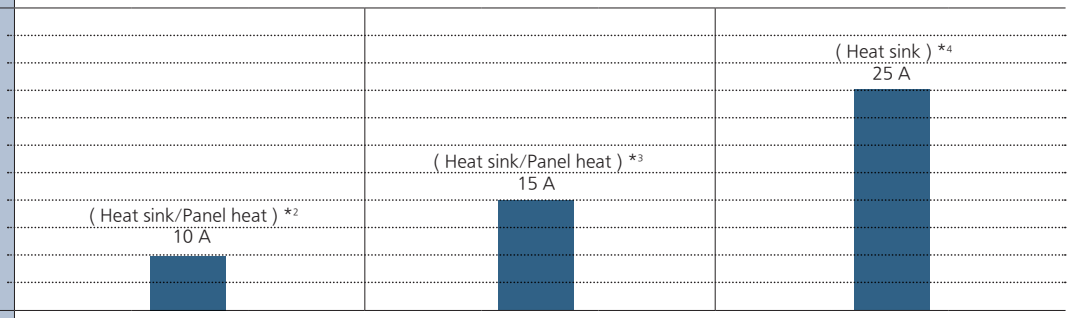
* Normal part number is taken UL/C–UL, standards. About VDE standard, please contact our sales representative.

Solid State Relays Selector Chart

Product name			AQ8 Relays					
Type			Random					
Number of terminals			4–pin					
Type			2 A			3 A		
Appearance configuration *Standoff height included (mm)								
Features			SIL type with 9 mm thickness, 3,000 V AC high dielectric voltage, controls up to 2 A/3 A					
Part No.	Input terminal distance: 5.08 mm		AQ80239	AQ80233	AQ80234	AQ80259	AQ80253	AQ80254
	Input terminal distance: 7.62 mm		AQ81239	AQ81233	AQ81234	AQ81259	AQ81253	AQ81254
Load side	Load voltage	AC	75 to 250 Vrms					
		DC	–					
	Max. load current							
	Off state leakage current, max.		5 mA					
	Non–repetitive surge current		30 A			80 A		
Input side	Control voltage		4 to 6 V	9.6 to 14.4 V	21.6 to 26.4 V	4 to 6 V	9.6 to 14.4 V	21.6 to 26.4 V
	Input impedance, approx.		0.3 kΩ	0.8 kΩ	1.8 kΩ	0.3 kΩ	0.8 kΩ	1.8 kΩ
	Drop–out voltage, min.		0.5 V	1.2 V	2.4 V	0.5 V	1.2 V	2.4 V
Operate time, max.			1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			UL/C–UL, VDE*					
Mass (weight) (approx.)			6.8 g			9.8 g		

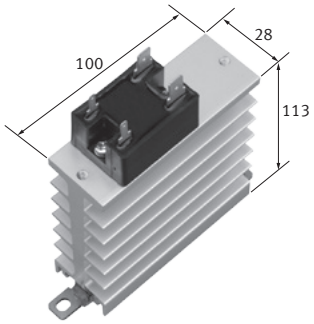
* Normal part number is taken UL/C–UL, standards. About VDE standard, please contact our sales representative.

Solid State Relays Selector Chart

Product name			AQ–J Relays								
Type			Zero–cross*								
Number of terminals			4								
Type			10 A			15 A			25 A		
Appearance configuration *Standoff height included (mm)			 Input terminal : #110 type Output terminal: #250 type								
Features			Load current 10 to 25 A Small Tab Terminal SSR								
Part No.			AQJ112V	AQJ119V	AQJ116V	AQJ212V	AQJ219V	AQJ216V	AQJ412V	AQJ419V	AQJ416V
Load side	Load voltage	AC	75 to 264 Vrms								
		DC	—								
	Max. load current	30 A 25 A 20 A 15 A 10 A										
	Off state leakage current, max.		5 mA								
	Non–repetitive surge current		100 A			150 A			250 A		
Input side	Control voltage		4 to 6 V	10 to 18 V	18 to 28 V	4 to 6 V	10 to 18 V	18 to 28 V	4 to 6 V	10 to 18 V	18 to 28 V
	Input impedance, approx.		0.26 kΩ	0.8 kΩ	1.6 kΩ	0.26 kΩ	0.8 kΩ	1.6 kΩ	0.26 kΩ	0.8 kΩ	1.6 kΩ
	Drop–out voltage, min.		1 V								
Operate time, max.			1/2 cycle of voltage sine wave +1 ms								
Release time, max.			1/2 cycle of voltage sine wave +1 ms								
Breakdown voltage			3,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)								
Snubber circuit integrated			●								
LED operation indicator			—								
Safety standards			UL/C–UL, VDE								
Mass (weight) (approx.)			30 g								

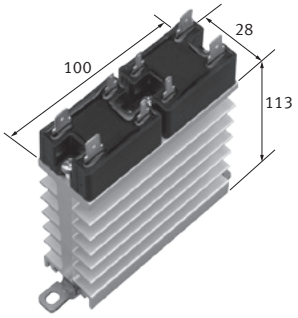
*1: Random type is available by custom order.
*2: When mounting a standard heat sink (AQP813) or when mounting on 100 × 100 × t1.6 (mm) iron plate
*3: When mounting a standard heat sink (AQP813) or when mounting on 200 × 200 × t2 (mm) iron plate
*4: When mounting a standard heat sink (AQP815)

Solid State Relays Selector Chart

Product name			AQ–J Relays					
Type			Zero–cross*					
Number of terminals			4					
Type			10 A (Output arrangement: 1 Form A)			20 A (Output arrangement: 1 Form A)		
Appearance configuration *Standoff height included (mm)			 Input terminal : #110 type Output terminal: #250 type					
Features			Load current 10 to 25 A Small Tab Terminal SSR					
Part No.			AQJ112VY	AQJ119VY	AQJ116VY	AQJ412VY	AQJ419VY	AQJ416VY
Load side	Load voltage	AC	75 to 264 Vrms					
		DC	–					
	Max. load current	30 A 25 A 20 A 15 A 10 A		10 A			20 A	
	Off state leakage current, max.		5 mA					
	Non–repetitive surge current		100 A			250 A		
Input side	Control voltage		4 to 6 V	10 to 18 V	18 to 28 V	4 to 6 V	10 to 18 V	18 to 28 V
	Input impedance, approx.		0.26 kΩ	0.8 kΩ	1.6 kΩ	0.26 kΩ	0.8 kΩ	1.6 kΩ
	Drop–out voltage, min.		1 V					
Operate time, max.			1/2 cycle of voltage sine wave +1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			–					
Mass (weight) (approx.)			250 g					

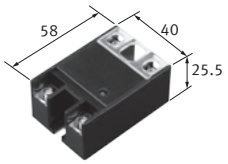
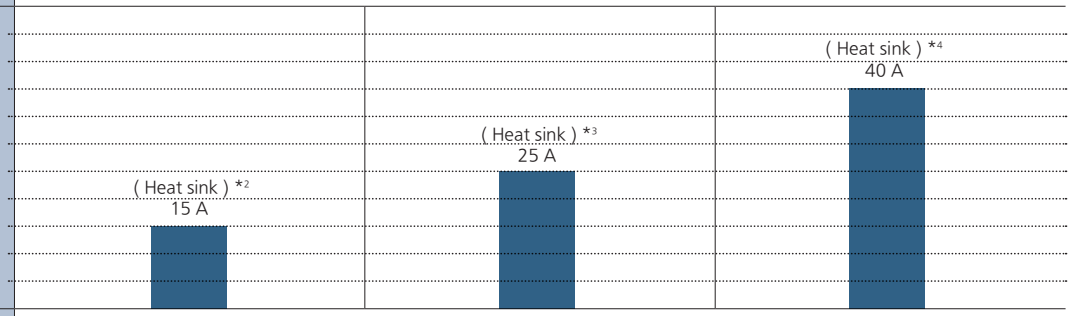
* Random type is available by custom order.

Solid State Relays Selector Chart

Product name			AQ–J Relays					
Type			Zero–cross*					
Number of terminals			4 × 2					
Type			10 A (Output arrangement: 1 Form A × 2)			15 A (Output arrangement: 1 Form A × 2)		
Appearance configuration *Standoff height included (mm)			 Input terminal : #110 type Output terminal: #250 type					
Features			Load current 10 to 25 A Small Tab Terminal SSR					
Part No.			AQJ112VW	AQJ119VW	AQJ116VW	AQJ412VW	AQJ419VW	AQJ416VW
Load side	Load voltage	AC	75 to 264 Vrms					
		DC	–					
	Max. load current	30 A 25 A 20 A 15 A 10 A	(per 1 Form A) 10 A			(per 1 Form A) 15 A		
	Off state leakage current, max.		5 mA					
	Non–repetitive surge current		100 A			250 A		
Input side	Control voltage		4 to 6 V	10 to 18 V	18 to 28 V	4 to 6 V	10 to 18 V	18 to 28 V
	Input impedance, approx.		0.26 kΩ	0.8 kΩ	1.6 kΩ	0.26 kΩ	0.8 kΩ	1.6 kΩ
	Drop–out voltage, min.		1 V					
Operate time, max.			1/2 cycle of voltage sine wave +1 ms					
Release time, max.			1/2 cycle of voltage sine wave +1 ms					
Breakdown voltage			3,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)					
Snubber circuit integrated			●					
LED operation indicator			–					
Safety standards			–					
Mass (weight) (approx.)			280 g					

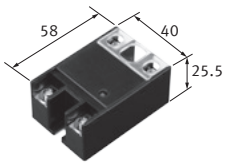
* Random type is available by custom order.

Solid State Relays Selector Chart

Product name			AQ–A Relays (AC output type)		
Type			Zero–cross*		
Number of terminals			4		
Type			15 A	25 A	40 A
Appearance configuration *Standoff height included (mm)					
Features			Load current up to Max. 40 A in the series, Small Screw Terminal SSR		
Part No.			AQA211VL	AQA411VL	AQA611VL
Load side	Load voltage	AC	75 to 250 Vrms		
		DC	–		
	Max. load current				
	Off state leakage current, max.		10 mA		
	Non–repetitive surge current		150 A	250 A	400 A
	Peak load current		–	–	–
Input side	Control voltage		4 to 32 V		
	Input impedance, approx.		–		
	Drop–out voltage, min.		1 V		
Operate time, max.			1/2 cycle of voltage sine wave +1 ms		
Release time, max.			1/2 cycle of voltage sine wave +1 ms		
Breakdown voltage			4,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)		
Snubber circuit integrated			●		
Reverse connection prevention diode			–		
LED operation indicator			●		
Safety standards			UL/C–UL, VDE		
Mass (weight) (approx.)			70 g		

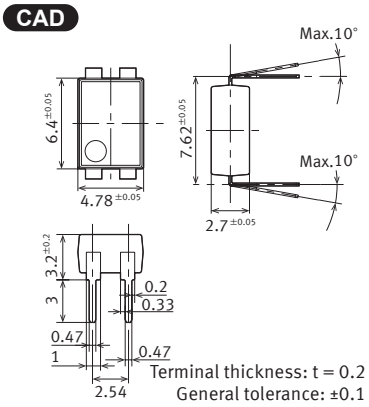
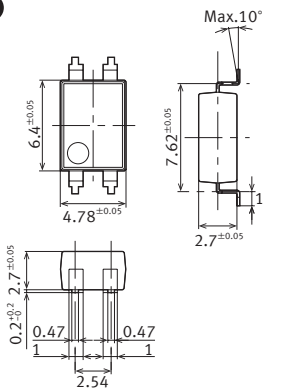
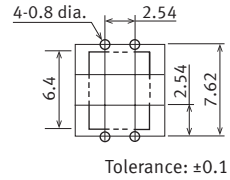
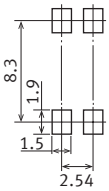
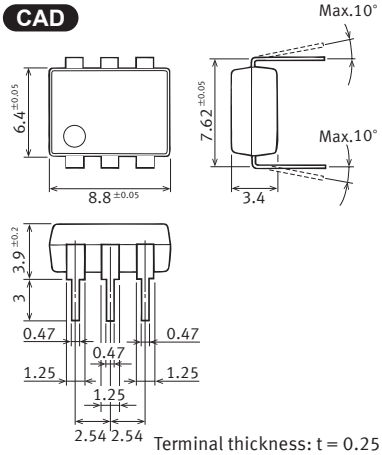
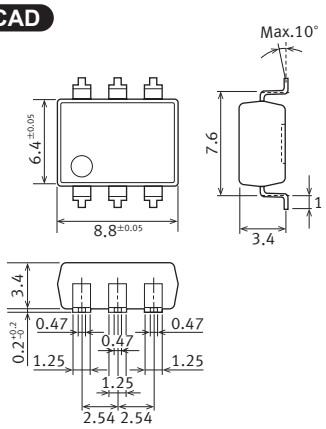
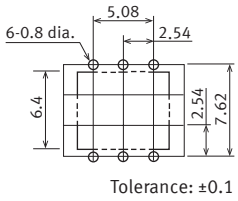
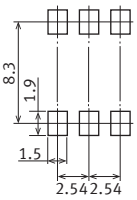
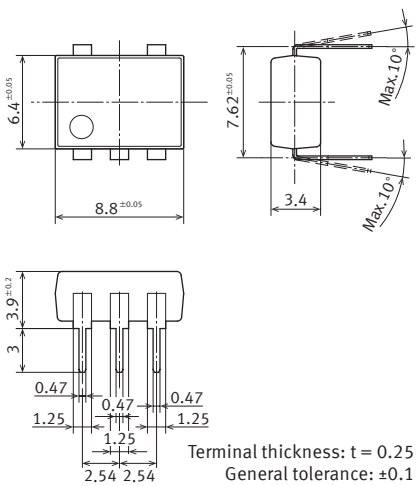
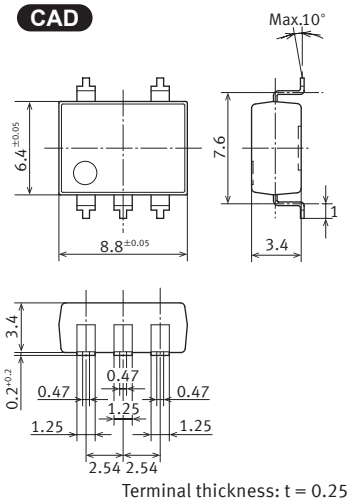
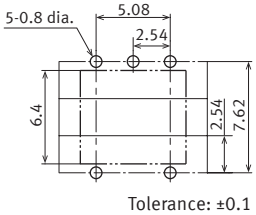
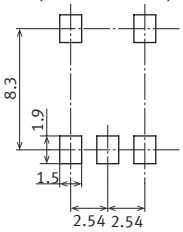
*1: Random type is available by custom order.
*2: When mounting a standard heat sink (AQP813 or AQP812)
*3: When mounting a standard heat sink (AQP814)
*4: When mounting a standard heat sink (AQP815)

Solid State Relays Selector Chart

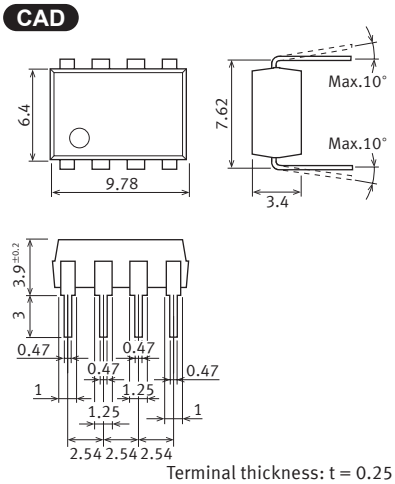
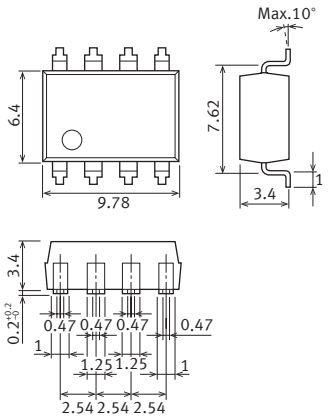
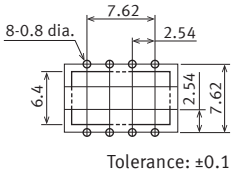
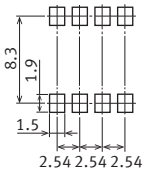
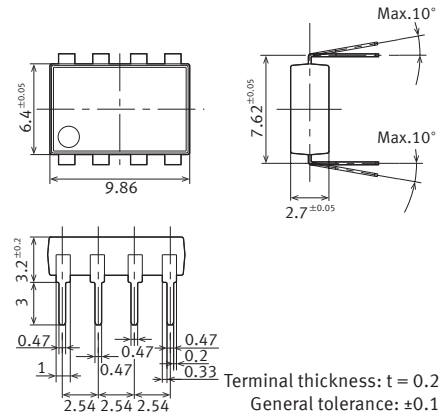
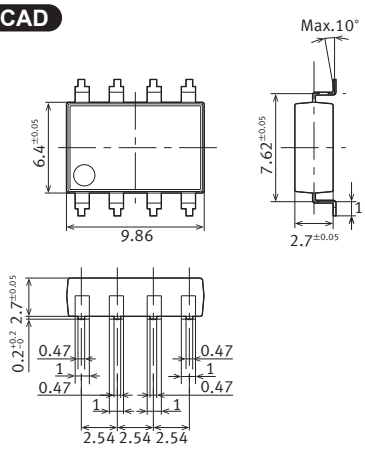
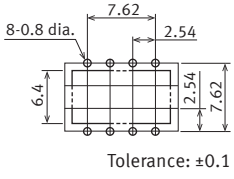
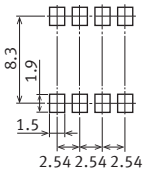
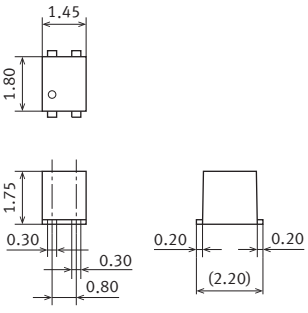
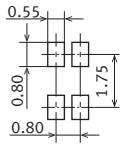
Product name			AQ–A Relays (DC output type)	
Type			–	
Number of terminals			4	
Type			30 A	10 A
Appearance configuration *Standoff height included (mm)				
Features			Load current up to Max. 40 A in the series, Small Screw Terminal SSR	
Part No.			AQAD551DL	AQAD171DL
Load side	Load voltage	AC	–	
		DC	100 V	600 V
	Max. load current	50 A 40 A 30 A 20 A 10 A	(Heat sink) *1 30 A	(Heat sink) *2 10 A
	Off state leakage current, max.		100 μA	
	Non–repetitive surge current		–	
	Peak load current		90 A (100 ms)	20 A (100 ms)
Input side	Control voltage		4 to 32 V	
	Input impedance, approx.		–	
	Drop–out voltage, min.		1 V	
Operate time, max.			10 ms	5 ms
Release time, max.			3 ms	1 ms
Breakdown voltage			4,000 Vrms (between input and output) 2,500 Vrms (between input, output and case)	
Snubber circuit integrated			–	
Reverse connection prevention diode			●	
LED operation indicator			●	
Safety standards			UL/C–UL, VDE	
Mass (weight) (approx.)			70 g	

*1: When mounting a standard heat sink (AQP815)
*2: When mounting a standard heat sink (AQP812)

PhotoMOS® Dimensions

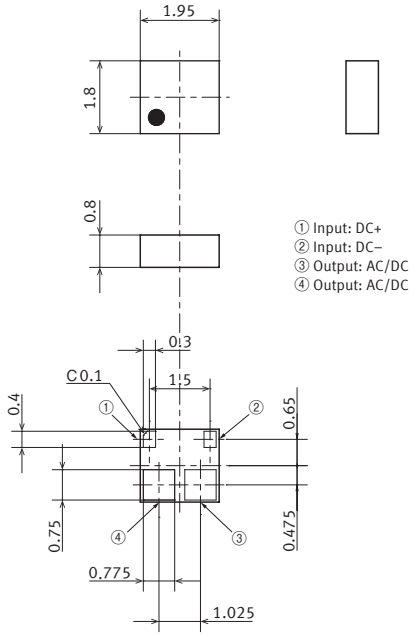
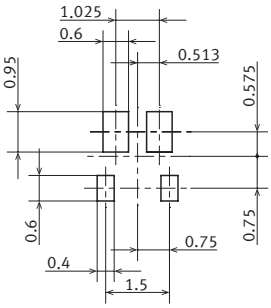
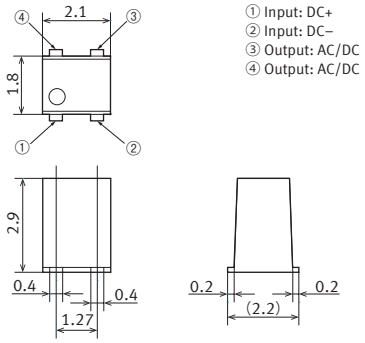
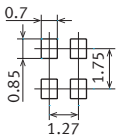
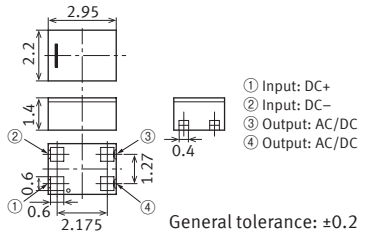
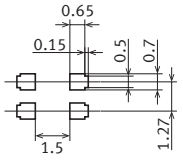
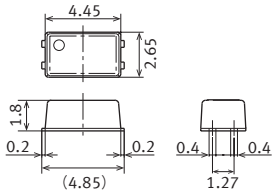
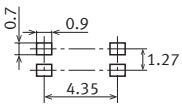
Type	Dimensions (mm)
AQY21 (DIP) AQY41 (DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.2 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.2 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQV10 (DIP) AQV11 (DIP) AQV20 (DIP) AQV21 (DIP) AQV22 (DIP) AQV23 (DIP) AQV25 (DIP) AQV41 (DIP) AQV45 (DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQV258H5 (DIP) APV1122 (DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1

CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

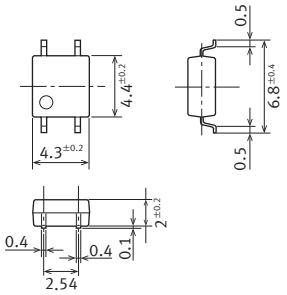
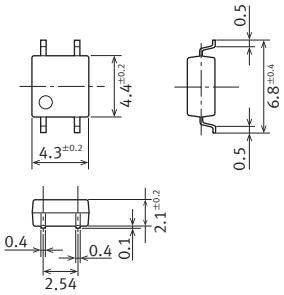
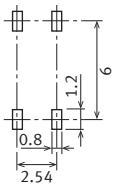
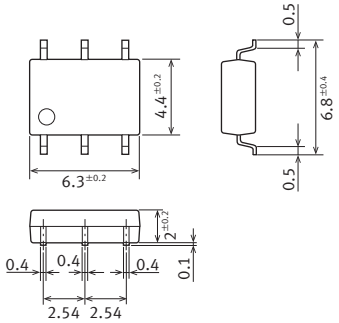
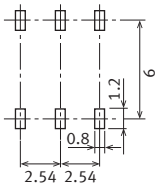
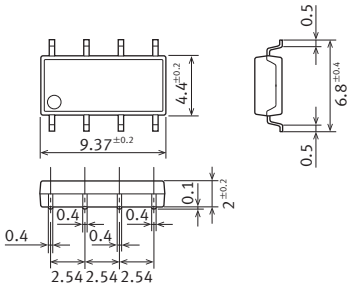
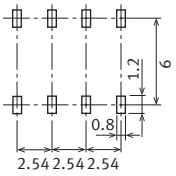
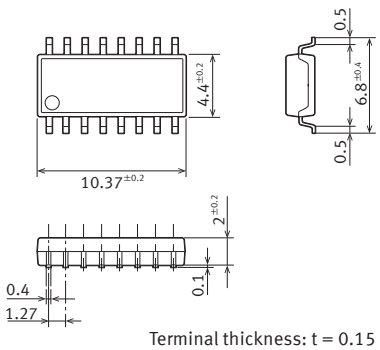
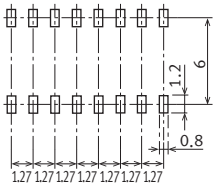
Type	Dimensions (mm)
AQW21 (DIP) AQW22 (DIP) AQW25 (DIP) AQW41 (DIP) AQW45 (DIP) AQW61 (DIP) AQW65 (DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQW21*EH (DIP) AQW41*EH (DIP) AQW61*EH (DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.2 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.2 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQY23* (WSSOP) Series	CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1

* Stand for one digit.

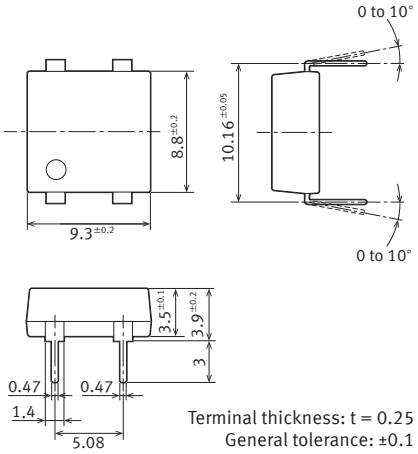
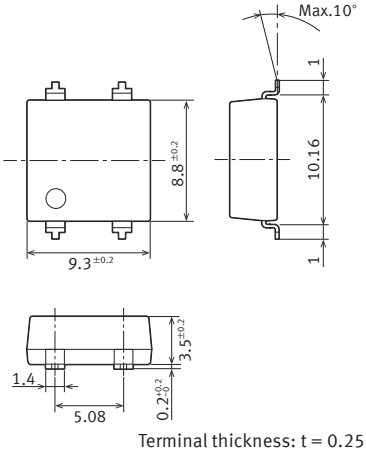
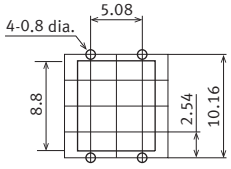
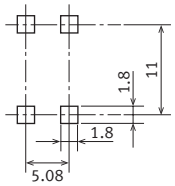
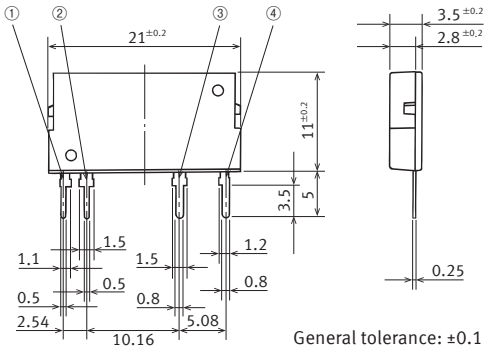
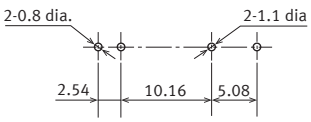
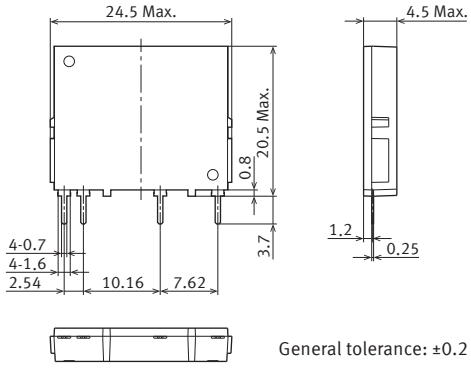
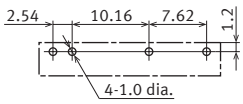
CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Type	Dimensions (mm)
AQY2C (TSON) AQY4C (TSON) Series	 CAD External dimensions  General tolerance: ±0.2 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQY22 (VSSOP) Series	 CAD External dimensions  General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQY22 (SON) Series	 CAD External dimensions  General tolerance: ±0.2 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
APV11 (SSOP) APV21 (SSOP) APV31 (SSOP) AQY20 (SSOP) AQY22 (SSOP) Series	 CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1

CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Type	Dimensions (mm)
APV11 (SOP) APV21 (SOP) AQY21 (SOP) AQY22 (SOP) AQY23 (SOP) AQY28 (SOP) AQY41 (SOP) Series	 (I/O isolation voltage: 1,500 V)  (I/O isolation voltage: 3,750 V) CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQV21 (SOP) AQV22 (SOP) AQV25 (SOP) AQV41 (SOP) Series	 CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQW21 (SOP) AQW22 (SOP) AQW41 (SOP) AQW61 (SOP) Series	 CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQS22 (SOP) Series	 CAD External dimensions  Terminal thickness: t = 0.15 General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1

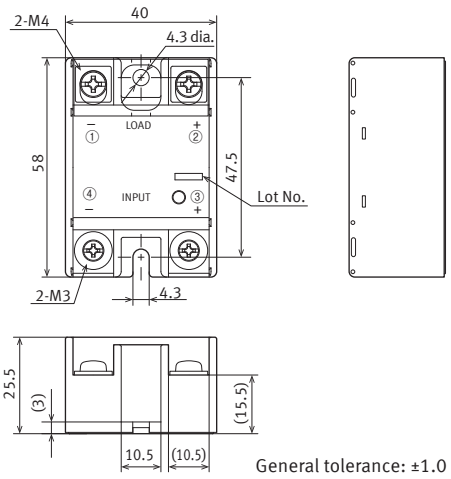
CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Type	Dimensions (mm)
AQY27 (Power–DIP) Series	Through hole terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 Surface mount terminal type External dimensions CAD  Terminal thickness: t = 0.25 General tolerance: ±0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQZ10 (SIL) AQZ20 (SIL) AQZ40 (SIL) Series	 CAD External dimensions AC/DC type ① Input: DC– ② Input: DC+ ③ Output: DC or AC ④ Output: DC or AC DC type ① Input: DC– ② Input: DC+ ③ Output: DC– ④ Output: DC+  General tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ±0.1
AQZ19 (SIL) Series	 CAD External dimensions  General tolerance: ±0.2 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Schematic Input Output – +

CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

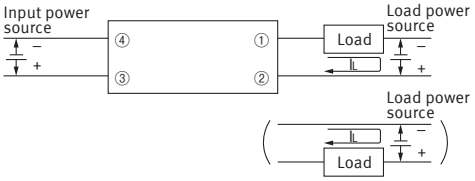
Type	Dimensions (mm)
AQAD Series	 CAD

External dimensions

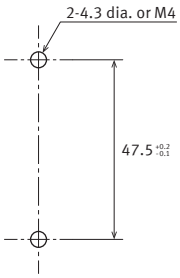


General tolerance: ±1.0

Schematic

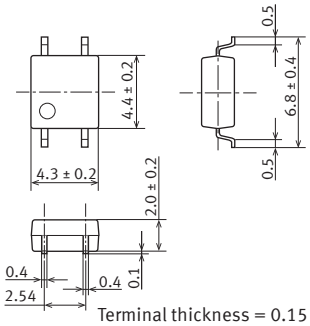
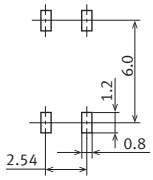
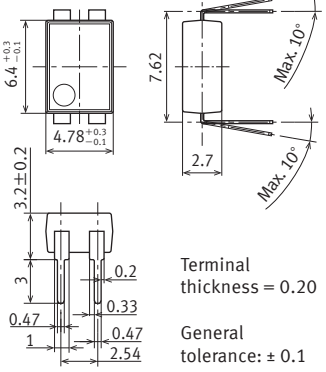
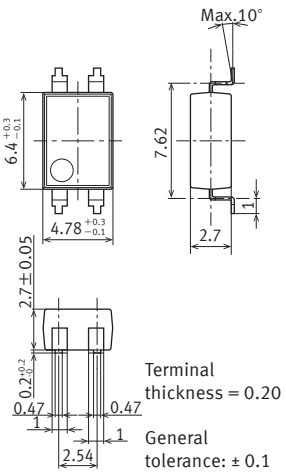
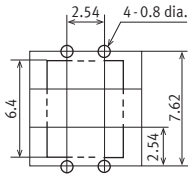
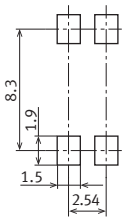


Mounting dimensions



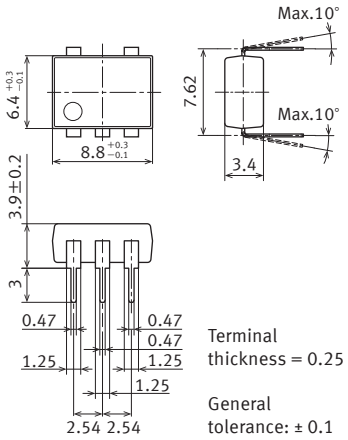
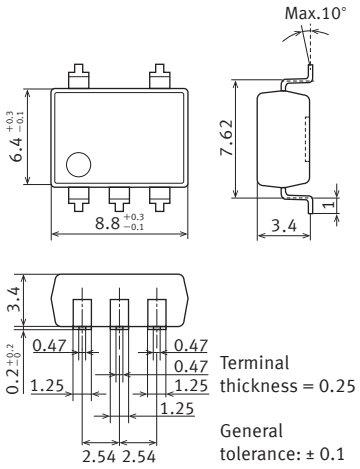
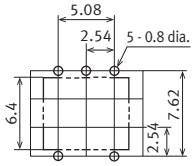
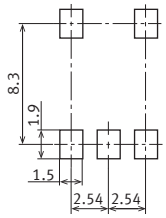
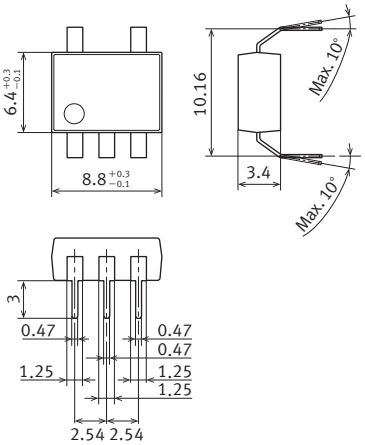
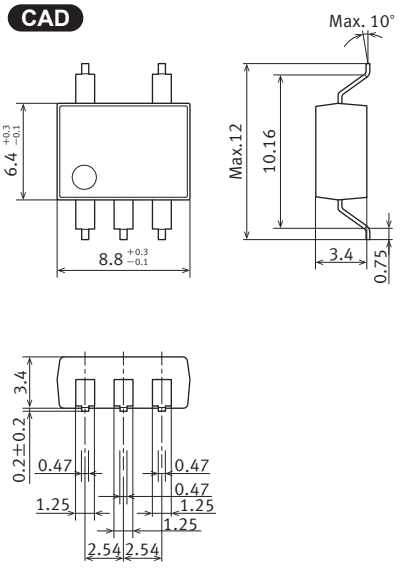
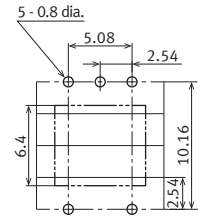
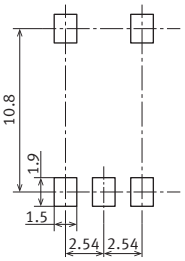
CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Phototriac Coupler Dimensions

Type	Dimensions (mm)
APT1211S (SOP) APT1221S (SOP) APT1231S (SOP) Series	 CAD External dimensions  Terminal thickness = 0.15 General tolerance: ± 0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ± 0.1
APT1211 (A) (DIP4) APT1221 (A) (DIP4) APT1231 (A) (DIP4) Series	 CAD Through hole terminal type External dimensions  Terminal thickness = 0.20 General tolerance: ± 0.1 CAD Surface mount terminal type External dimensions  Terminal thickness = 0.20 General tolerance: ± 0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ± 0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ± 0.1

CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Phototriac Coupler Dimensions

Type	Dimensions (mm)
APT1212 (A) (DIP6) APT1222 (A) (DIP6) APT1232 (A) (DIP6) Series	 Through hole terminal type External dimensions CAD  Terminal thickness = 0.25 General tolerance: ± 0.1  Surface mount terminal type External dimensions CAD  Terminal thickness = 0.25 General tolerance: ± 0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ± 0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ± 0.1
APT1212W (A) (DIP6 WIDE) APT1222W (A) (DIP6 WIDE) APT1232W (A) (DIP6 WIDE) Series	 Through hole terminal type External dimensions CAD  Terminal thickness = 0.25 General tolerance: ± 0.1  Surface mount terminal type External dimensions CAD  Terminal thickness = 0.25 General tolerance: ± 0.1 PC board pattern (BOTTOM VIEW)  Tolerance: ±0.1 Recommended mounting pad (TOP VIEW)  Tolerance: ± 0.1

CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

Please refer to **" the latest product specifications "** when designing your product.
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