

Panasonic's Conductive Polymer Hybrid capacitor combines the low ESR characteristics of a polymer capacitor with the low leakage current of an aluminium electrolytic capacitor. Benefits such as high ripple current, high reliability, safety and small case sizes are the result of this technology.

Technical Information

Voltage Range	25 to 80 V _{DC}
Capacitance Range	10 to 470 µF
Endurance	4000h at 125°C
ESR	Down to 20 mΩ
Ripple Current	up to 3 Arms
Leakage Current	max. 0.01CV or 3 µA
Size	Ø 5 mm to 10 mm
Height	5.8 mm to 10.2 mm
Temperature Range	up to 125°C
AEC-Q200	All series qualified

Features

- High reliability
- Downsizing
- Stable electrical characteristics
- High temperature
- Low leakage current
- Open failure mode
- Vibration withstand 10G
- Anti-vibration type withstands 30G

Main Applications

- Automotive (body, chassis, powertrain)
- Metering
- Industrial motors, drives
- Power supply
- DC/DC converter
- Hybrid charger controller



Why a Polymer Capacitor?

Are you looking for a solution which offers miniaturisation with higher capacity, a lower ESR value, higher reliability and longer lifetime?

Polymer capacitors meet your requirements!

More information at:

www.rutronik.com
<https://eu.industrial.panasonic.com>

Product Marketing

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Committed to excellence

Polymer Capacitors

POSCAP™
Polymer Tantalum Solid Capacitors

OS-CON™
Polymer Aluminium Solid Capacitors

SP-Cap
Polymer Aluminium Capacitor Chip

Hybrid
Conductive Polymer Hybrid

Consult | Components | Logistics | Support

www.rutronik.com

OS-CON™ is an aluminum solid capacitor with high conductive polymer electrolyte material. In addition, OS-CON offers market leading ripple current rating and its low ESR has little change even at low temperatures since the electrolyte is solid.

Technical Information

Voltage range	2 to 100 VDC
Capacitance range	3.3 to 2700 µF
Endurance	5000h at 125°C
ESR	Down to 5 mΩ
Ripple current	up to 7.2 Arms
Size	Ø 4 mm to 10 mm
Height	5.5 mm to 13 mm
Temperature range	up to 125°C
AEC-Q200	Qualified series available

Features

- High ripple current
- Wide capacitance range
- High voltage
- Very low leakage current in solid polymer class
- No dry out

Main Applications

- IPC server
- Camera systems
- Power supply
- Industrial
- Prof. audio/video equipment
- AC/DC converter
- Switching power supplies



The POSCAP™ uses sintered Tantalum for the Anode which enables a huge capacity despite a very low profile. Furthermore the POSCAP™ uses high conductive Polymer to achieve a very low ESR. Unlike MLCC the POSCAP™ doesn't have any capacitance reduction by applied DC voltage.

Technical Information

Voltage range	2 to 35 VDC
Capacitance range	2.7 to 1500 µF
Endurance	1000h at 125°C
ESR	Down to 5 mΩ
Ripple current	up to 6.1 Arms
Size	2.0 x 1.25 mm to 7.3 x 4.3 mm
Height	0.9 mm to 3.8 mm
Temperature range	up to 125°C
AEC-Q200	Qualified series available

Features

- Smallest case sizes by high energy density
- No ignition
- No voltage derating up to 105 °C
- No dry out

Main Applications

- Telecommunication
- Automotive infotainment/ connectivity
- Embedded systems
- Wireless M2M
- FPGA
- Prof. audio/video equipment



The SP-Cap is a Polymer Organic Aluminum Capacitor that offers excellent performance from moderate to high capacitance and voltage values at low cost. The Sp-Cap offers exceptionally low ESR with high capacitance density coupled with best in class ripple current in low profile packaging.

Technical Information

Voltage range	2 to 35 VDC
Capacitance range	2.2 to 560 µF
Endurance	1000h at 125°C
ESR	Down to 3 mΩ
Ripple current	up to 10.2 Arms
Size	7.3x4.3 mm
Height	0.9 mm to 2 mm
Temperature range	up to 125°C
AEC-Q200	Please contact Rutronik

Features

- Ultra low ESR & high ripple current values
- Excellent solution for noise reduction
- No voltage derating
- No dry out
- No capacitance drift against high temperature / high frequency
- Security aspect – no short circuit, no ignition

Main Applications

- Embedded systems
- CPU
- Machine vision
- Set top box
- FPGA
- Sensor buffers / load and hold



Benefits of a Polymer Capacitor: Low ESR & High ripple current | High reliability & safety | Stable temperature & frequency characteristics | No capacitance drift
No piezo effect | Long lifetime (typ. 10 years at 85 °C) | No voltage derating up to 105 °C operations | Solution downsizing | No DC Bias