

SAMWHA Electric new "YM" and "YL" series

In consideration of needs of higher ripple current and capacitance at 125°C, Samwha Electric Co., Ltd has launched two new conductive polymer hybrid aluminum electrolytic capacitor "YM" and "YL" series.

"YM" series, a higher ripple current version of YH series (SMD type), has temperature range of -55°C to 125°C with the lifetime up to 4,000 hours. Provided voltage range from 25V to 63V with capacitance of 47 to $680\mu\text{F}$, it would be an ideal option for the requirement of high capacitance.

Additionally, "YL" series is a radial type series developed on the same purpose as YM series to offer higher capacitance and ripple current at 125°C comparing to YG series. Voltage and capacitance range consist as same as "YM" series. Based on their characteristics, these two series could apply to diverse uses in the market.

Key Features ("YM" Series)



Item	Characteristics						
Operating temperature range	-55 ~ +125°C						
Leakage current max.	I = 0.01CV or 3 _µ A whichever is greater (after 2 minutes)						
Capacitance tolerance	±20% at 120Hz, 20℃						
Dissipation factor max. (at 120Hz, 20°C)	WV	25	35	50	63		
	tan∂	0.14	0.12	0.1	0.08		
Low temperature characteristics (Impedance ratio at 100kHz)	$Z (-25^{\circ}C) / Z (+20^{\circ}C) \le 1.5$ $Z (-55^{\circ}C) / Z (+20^{\circ}C) \le 2.0$						
	After an application of DC bias voltage plus the rated AC ripple current for 4000 hours at 125°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.						
Load life	Capacitance change		Within ±30% of initial value				
	tan∂		Less than 200% of the specified value				
	ESR		Less than 200% of the specified value				
	Leakage current		Less than specified value				
Shelf life (at 125°C)	After 1000 hours no load test, leakage current, capacitance and tanô are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4						
	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 10 seconds.						
Resistance to soldering heat	Leakage current Less than specified value		alue				
	Capacitance change		Within ±10% of initial value				
	tan∂ Less than specified value						

Key Features ("YL" Series)



Item	Characteristics						
Operating temperature range	-55 ~ +125°C						
Leakage current max.	$I = 0.01CV$ or 3μ A whichever is greater (after 2 minutes)						
Capacitance tolerance	±20% at 120Hz, 20℃						
Dissipation factor max. (at 120Hz, 20°C)	WV	25	35	50	63		
	tan∂	0.14	0.12	0.1	0.08		
Low temperature characteristics (Impedance ratio at 100kHz)	$Z (-25^{\circ}C) / Z (+20^{\circ}C) \le 1.5$ $Z (-55^{\circ}C) / Z (+20^{\circ}C) \le 2.0$						
Load life	After an application of DC bias voltage plus the rated AC ripple current for 4000 hours at 125°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.						
	Capacitance change		Within ±30% of initial value				
	tan∂	Le	Less than 200% of the specified value				
	ESR	Le	Less than 200% of the specified value				
	Leakage current	Le	Less than specified value				
Shelf life(at 125°C)	After 1000 hours no load test, leakage current, capacitance and tan∂ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4						