

LOW LEAKAGE CURRENT ULTRACAPACITOR MODULES

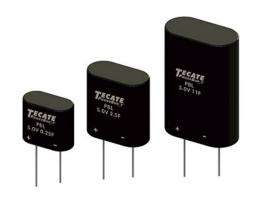
FEATURES

- · Small size and low resistance
- · Quick charge and discharge
- RoHS compliant
- UL recognized

APPLICATIONS

- Pulse power demand
- Hybrid battery packs
- Portable electronic devices



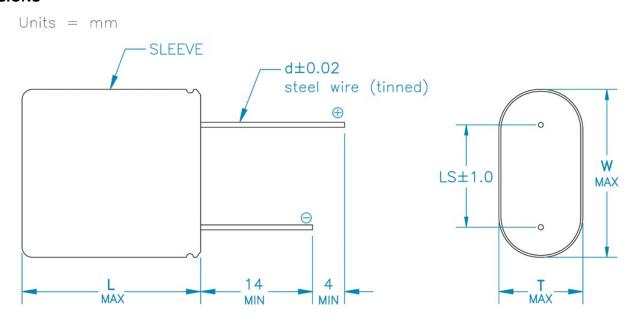


GENERAL SPECIFICATIONS

Item	Performance						
Operating temperature	-40°C to +65°C @ 5V						
operating temperature	-40°C to +85°C @ 4.6V						
Storage temperature	-40°C to +70°C						
Capacitance	0.47F						
Rated voltage	5 VDC / 4.6 VDC						
Surge voltage	5.7 VDC						
Temperature characteristics	Capacitance change: Within ±5% of initial measured value at +25°C (-40°C to +85°C)						
	Internal resistance: Within ±50% of initial measured value at +25°C (at -40°C)						
Endurance	After 1000 hours, the capacitor shall meet the following limits:						
(At rated voltage & max. operating	Capacitance change: ±30% of initial rated value						
temp)	Internal resistance: Within 2 times of initial specified value						
Projected Load life (At rated voltage & 25°C)	After 10 years:						
	Capacitance change: Within ±30 % of initial rated value						
	Internal resistance: Within 2 times of initial specified value						
Projected cycle life	After 500,000 cycles:						
(From rated voltage to 1/2 rated	Capacitance change: Within ±30 % of initial rated value						
voltage at 25°C)	Internal resistance: Within 2 times of initial specified value						
Shelf life	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits.						

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DIMENSIONS



STANDARD PRODUCTS

Part Number	Nom. Cap. (F)	CMV/(E)*	ESR DC (mΩ)	ESR AC (mΩ) (1 KHz)	Leakage Current (mA) (72 hrs @ 25C)	Dimensions (mm)					Rated
		GMV (F)*				L	w	Т	d	LS	Current (A)
PBL-0.47/5.0NB	0.47	0.42	1400	630	0.006	17	18	10	0.6	12	0.79

^{*}NOTE: GMV = Guaranteed Minimum Value.