

# GENERAL PURPOSE RADIAL LEAD ULTRACAPACITOR CELLS

### **FEATURES**

- · Small size and low resistance
- · Quick charge and discharge
- RoHS compliant
- UL recognized
- Sealed for improved performance in elevated humidity environments

#### **APPLICATIONS**

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





#### **GENERAL SPECIFICATIONS**

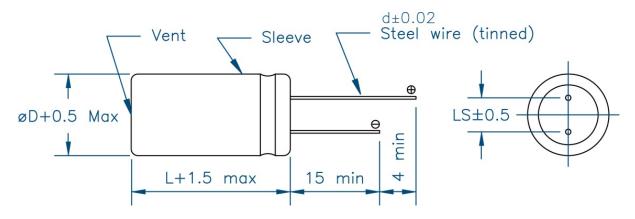
Item	Performance								
Operating temperature	-40°C to +65°C @ 2.7V								
Operating temperature	-40°C to +85°C @ 2.3V								
Storage temperature	-40°C to +70°C								
Capacitance	3.3F								
Rated voltage	2.7 VDC / 2.3 VDC								
Surge voltage	2.85 VDC								
Temperature characteristics	Capacitance change: Within ±5% of initial measured value at +25°C (-40°C to +65°C)								
remperature characteristics	Internal resistance: Within ±50% of initial measured value at +25°C (at -40°C)								
Endurance	After 1000 hours:								
(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	After 10 years:								
(At rated voltage & 25°C)	Capacitance change: Within ±30 % of initial rated value								
(At fated voltage & 23 C)	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.								
Biased humidity life	I humidity life 3000 hours of continuous charging at VR, 60°C and 90%RH for mechanical integrity								

Spec. Date: 2019-10-10 11:08:00



# GENERAL PURPOSE RADIAL LEAD ULTRACAPACITOR CELLS

### **DIMENSIONS**



#### **STANDARD PRODUCTS**

Part Number	Nom. Cap. (F) GMV (F)*	ESR DC	ESR AC (mΩ)	Leakage Current (mA)	Dimensions (mm)				Rated	Weight/Unit	
		(F)*	( <b>m</b> Ω)	(1 KHz)	(72 hrs @ 25C)	D	٦	d	LS	Current (A)	(grams)
TPL-3.3/10X20F	3.3	2.97	290	150	0.012	10	20	0.6	5	2.28	2

<sup>\*</sup>NOTE: GMV = Guaranteed Minimum Value.