

TYPE TPLH RADIAL GENERAL PURPOSE RADIAL LEAD ULTRACAPACITOR

CELLS

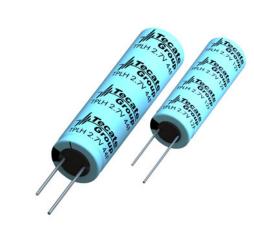
FEATURES

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

APPLICATIONS

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

GENERAL SPECIFICATIONS



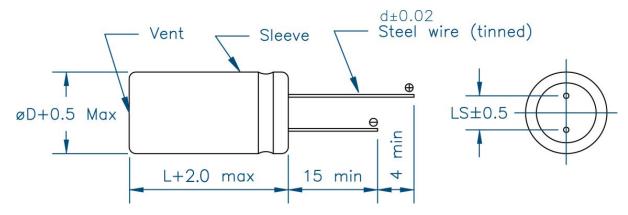
ltem	Performance								
Operating temperature	-40°C to +65°C @ 2.7V								
	-40°C to +85°C @ 2.3V								
Storage temperature	-40°C to +70°C								
Capacitance	30F								
Rated voltage	2.7 VDC / 2.3 VDC								
Surge voltage	2.85 VDC								
Temperature characteristics	Capacitance change: Within ±5% of initial measured value at +25°C (-40°C to +65°C)								
	Internal resistance: Within ±50% of initial measured value at +25°C (at -40°C)								
Endurance	After 1500 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 (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	rom 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	3000 hours of continuous charging at VR, 60°C and 90%RH for mechanical integrity								



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DIMENSIONS



STANDARD PRODUCTS

Nom. Cap. (F) GMV	GMV	/ ESR DC Typical (mΩ)	ESR AC Max. (mΩ) (1 KHz)	Leakage Current (mA) (72 hrs @ 25C)	Dimensions (mm)				Rated	Weight/Unit
	(F) *				D	L	d	LS	(A)	(grams)
30	27	33	26	0.08	16	26	0.8	7.5	19.76	8.5
	Cap. (F)	Cap. (F) (F)*	Cap. (F) GMV (F)* Typical (mΩ)	$\begin{array}{c c} \text{Nom.} & \text{GMV} & \text{ESR DC} \\ \text{Cap.} & (F)^* & \text{Typical} \\ (F) & (F)^* & (m\Omega) \\ \end{array} \begin{array}{c} \text{Max.} \\ (m\Omega) \\ (1 \text{ KHz}) \end{array}$	Nom. Cap. (F)*GMV (F)*ESR DC Typical (mΩ)ESR AC Max. (mΩ)Current (mA) (72 hrs @ 25C)	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Nom. Cap. (F)GMV (F)*ESR DC Typical (mΩ)ESR AC Max. (mΩ) (1 KHz)Current (mA) (72 hrs @ 25C)DimensiDimensi	Nom. Cap. (F)*GMV (F)*ESR DC Typical (mΩ)ESR AC Max. (mΩ)Current (mΩ)Dimensions (n(mΩ) (1 KHz)(mΩ) (72 hrs @ 25C)DLd	$\begin{array}{c c} Nom. \\ Cap. \\ (F) \end{array} \begin{array}{c} GMV \\ (F)^{\star} \end{array} \begin{array}{c} ESR DC \\ Typical \\ (m\Omega) \end{array} \begin{array}{c} ESR AC \\ Max. \\ (m\Omega) \\ (1 \text{ KHz}) \end{array} \begin{array}{c} Current \\ (mA) \\ (72 \text{ hrs }@ \\ 25C) \end{array} \begin{array}{c} Dimensions (mm) \\ D \end{array} \begin{array}{c} L \\ d \end{array} \begin{array}{c} LSR AC \\ LS \end{array}$	$\begin{array}{c c} Nom. \\ Cap. \\ (F) \end{array} & \begin{array}{c} GMV \\ (F)^{\star} \end{array} & \begin{array}{c} ESR \ DC \\ Typical \\ (m\Omega) \end{array} & \begin{array}{c} ESR \ AC \\ Max. \\ (m\Omega) \\ (1 \ KHz) \end{array} & \begin{array}{c} Current \\ (mA) \\ (72 \ hrs @ \\ 25C) \end{array} & \begin{array}{c} Dimensions \ (mm) \\ D \end{array} & \begin{array}{c} Rated \\ Current \\ (A) \end{array}$

*NOTE: GMV = Guaranteed Minimum Value.