

## FEATURES

- Compact size and energy dense
- Higher voltage
- Quick charge and discharge
- RoHS & Reach compliant

## APPLICATIONS

- Pulse power demand
- Ride thru power support
- Back up power
- Stand alone or augment existing energy/power source

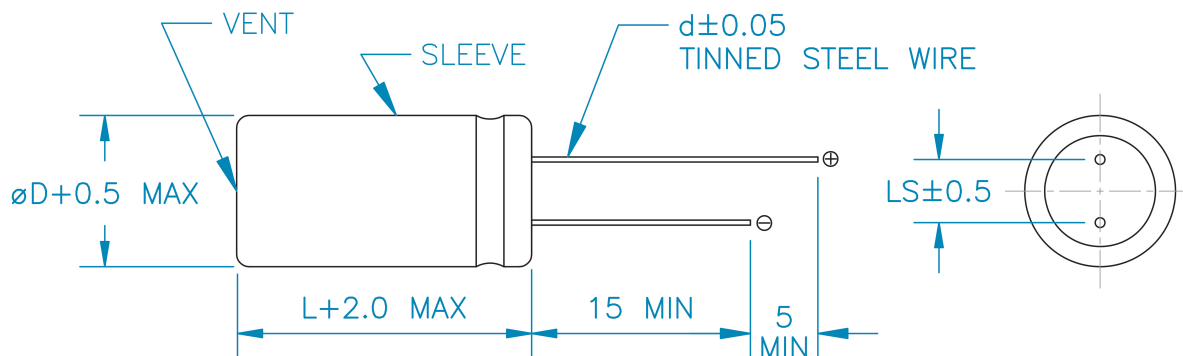


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## GENERAL SPECIFICATIONS

| Item                                                  | Performance                                                                                                                                                                        |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature                                 | -15°C to +70°C @ 3.8V<br>-15°C to +85°C @ 3.5V                                                                                                                                     |
| Storage temperature                                   | -25°C to +70°C                                                                                                                                                                     |
| Capacitance                                           | 50F                                                                                                                                                                                |
| Capacitance tolerance                                 | +/-20%                                                                                                                                                                             |
| Rated voltage                                         | 3.8 VDC / 3.5 VDC                                                                                                                                                                  |
| Minimum rated voltage                                 | 2.2 VDC                                                                                                                                                                            |
| Surge voltage                                         | 4.2 VDC                                                                                                                                                                            |
| Temperature characteristics                           | Capacitance change: Within $\pm 50\%$ of initial measured value at +25°C (-15°C to +70°C)<br>Internal resistance: Within $\pm 600\%$ of initial measured value at +25°C (at -15°C) |
| Endurance<br>(At rated voltage & max. operating temp) | After 1000 hours:<br>Capacitance change: $\pm 30\%$ of minimum rated value<br>Internal resistance: Within 2 times of maximum rated value                                           |
| Projected cycle life                                  | After 500,000 cycles: From 3.8V to 2.5V at 25°C<br>Capacitance change: Within $\pm 30\%$ of minimum value<br>Internal resistance: Within 2 times of maximum rated value            |
| Shelf life                                            | Three years at 25°C, or 1000hours at 70°C without load. The Capacitor shall meet the specified endurance limits.                                                                   |

## DIMENSIONS



## STANDARD PRODUCTS

| Part Number        | UL                                                                                  | Nom. Cap. (F) | ESR AC (mΩ) (1 KHz) | ESR DC Typical (mΩ) | Leakage Current (μA) | Dimensions (mm) |    |     |    | Rated Current (A) | Max Current* (A) | Weight/Unit (grams) |
|--------------------|-------------------------------------------------------------------------------------|---------------|---------------------|---------------------|----------------------|-----------------|----|-----|----|-------------------|------------------|---------------------|
|                    |                                                                                     |               |                     |                     |                      | D               | L  | d   | LS |                   |                  |                     |
| TPLC-3R8/50MR10X20 |  | 50            | 200                 | 700                 | 4.5                  | 10              | 20 | 0.6 | 5  | 0.25              | 1.8              | 3                   |

\* Maximum allowable current for 3 seconds or less.