

Snap-in Type

Series: **MD** Type: **TS**

■ Features

- Endurance: 105 °C 2000h
- Improved safety for DC overvoltage
- RoHS directive compliant

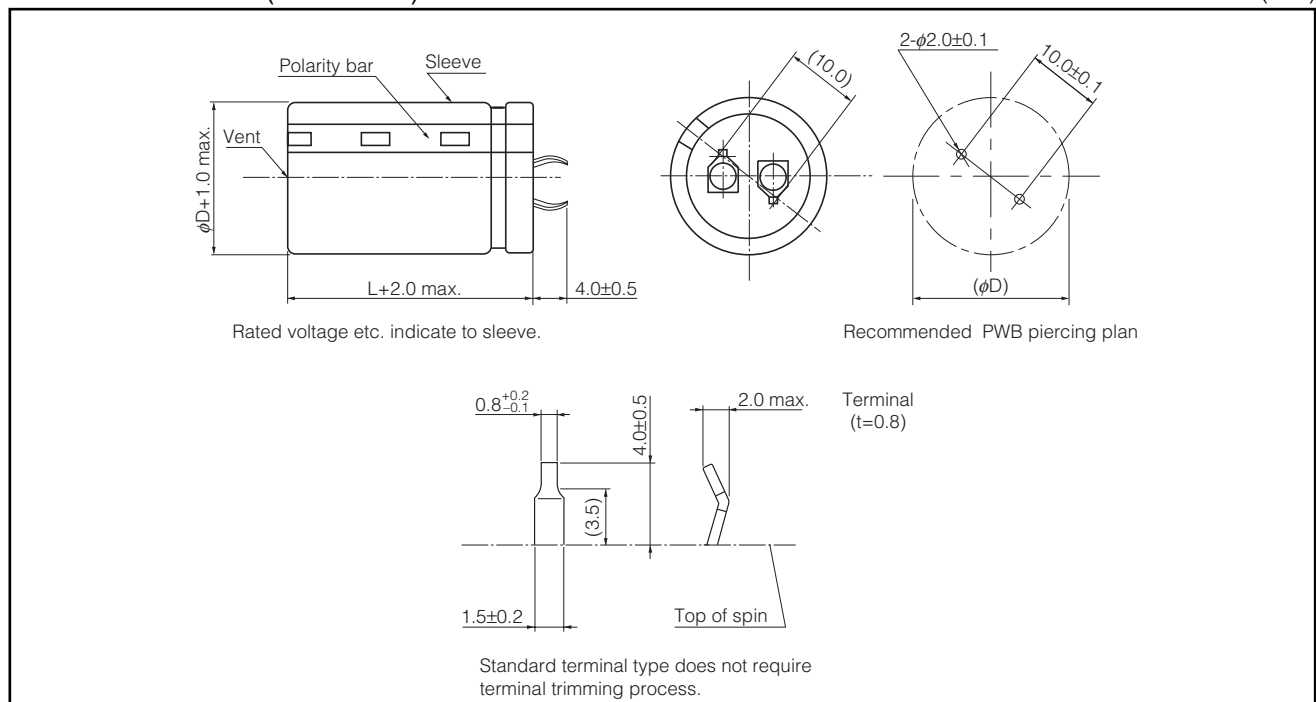


■ Specifications

| | | | | | | | | |
|--|---|------------------------------------|-------------------|-----------|----------|------|------|---------|
| Category Temp. Range | -40 °C to +105 °C | | -25 °C to +105 °C | | | | | |
| Rated W.V. Range | 200 V.DC | | 400 V.DC | | | | | |
| Nominal Cap. Range | 220 μF to 1500 μF | | 56 μF to 470 μF | | | | | |
| Capacitance Tolerance | ±20 % (120 Hz/+20 °C) | | | | | | | |
| DC Leakage Current | √CV (μA) max. (200 W.V.), 3√CV (μA) max. (400 W.V.) After 5 minutes application of rated working voltage at 20 °C C : Capacitance (μF) V: W.V. (V.DC) | | | | | | | |
| tan δ | Please see the attached standard products list. | | | | | | | |
| Frequency Correction Factor for Ripple Current | Frequency (Hz) | 50 | 60 | 100 | 120 | 500 | 1 k | 10 k to |
| | Correction Factor | 0.75 | 0.80 | 0.95 | 1.00 | 1.20 | 1.25 | 1.40 |
| Endurance | After 2000 hours application of DC voltage with specified ripple current (≦ rated DC working voltage) at +105 °C±2 °C, the capacitors shall meet the following limits. | | | | | | | |
| | Capacitance change | ≦ ±20 % of initial measured value | | | | | | |
| | tan δ | ≦ 200 % of initial specified value | | | | | | |
| | DC leakage current | ≦ initial specified value | | | | | | |
| Shelf Life | After storage for 1000 hours at +105 °C±2 °C within no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment) | | | | | | | |
| Overvoltage | Vent may work to prevent short circuit of fire under the following condition. | | | | | | | |
| | Condition | R.W.V. | Cap. (μF) | Condition | | | | |
| | | 200 V | 220 to 270 | 4 A | DC 375 V | | | |
| | | | 330 to 390 | 5 A | | | | |
| | | | 470 to 1500 | 7 A | | | | |
| 400 V | | 56 to 82 | 2 A | DC 600 V | | | | |
| | 100 to 180 | 4 A | | | | | | |
| | | 220 to 470 | 7 A | | | | | |

■ Dimensions in mm (not to scale)

(mm)



Standard Products

| W.V. (V. DC) | Cap. (120 Hz) (±20 %) (μF) | Case size | | Part No. PET sleeve Terminal Length 4.0 mm (Without Top Plate) | Specification | | Min. Packaging Q'ty (pcs) |
|-----------------|-------------------------------------|--------------|----------------|--|--|---------------------------------------|----------------------------------|
| | | Dia. (mm) | Length (mm) | | Ripple Current (120 Hz) (+105 °C) (A r.m.s.) | tan δ (120 Hz) (+20 °C) max. | |
| 200 | 220 | 22 | 25 | EETLD2D221BJ | 1.00 | 0.15 | 200 |
| | 270 | 22 | 30 | EETLD2D271BJ | 1.10 | 0.15 | 200 |
| | 330 | 22 | 30 | EETLD2D331BJ | 1.20 | 0.15 | 200 |
| | | 25 | 25 | EETLD2D331CJ | 1.20 | 0.15 | 200 |
| | 390 | 22 | 35 | EETLD2D391BJ | 1.35 | 0.15 | 200 |
| | | 25 | 30 | EETLD2D391CJ | 1.35 | 0.15 | 200 |
| | | 30 | 25 | EETLD2D391DJ | 1.35 | 0.15 | 200 |
| | 470 | 22 | 40 | EETLD2D471BJ | 1.45 | 0.15 | 200 |
| | | 25 | 30 | EETLD2D471CJ | 1.45 | 0.15 | 200 |
| | | 30 | 25 | EETLD2D471DJ | 1.45 | 0.15 | 200 |
| | 560 | 22 | 45 | EETLD2D561BJ | 1.60 | 0.15 | 200 |
| | | 25 | 35 | EETLD2D561CJ | 1.60 | 0.15 | 200 |
| | | 30 | 30 | EETLD2D561DJ | 1.60 | 0.15 | 200 |
| | | 35 | 25 | EETLD2D561EJ | 1.60 | 0.15 | 200 |
| | 680 | 25 | 40 | EETLD2D681CJ | 1.75 | 0.15 | 200 |
| | | 30 | 30 | EETLD2D681DJ | 1.75 | 0.15 | 200 |
| | | 35 | 25 | EETLD2D681EJ | 1.75 | 0.15 | 200 |
| | 820 | 25 | 45 | EETLD2D821CJ | 2.11 | 0.15 | 200 |
| | | 30 | 35 | EETLD2D821DJ | 2.11 | 0.15 | 100 |
| | | 35 | 30 | EETLD2D821EJ | 2.11 | 0.15 | 200 |
| 1000 | 30 | 45 | EETLD2D102DJ | 2.40 | 0.15 | 100 | |
| | 35 | 30 | EETLD2D102EJ | 2.40 | 0.15 | 200 | |
| 1200 | 30 | 45 | EETLD2D122DJ | 2.65 | 0.15 | 100 | |
| | 35 | 35 | EETLD2D122EJ | 2.65 | 0.15 | 100 | |
| * | 1500 | 35 | 45 | EETLD2D152EJ | 3.08 | 0.15 | 100 |
| 400 | 56 | 22 | 25 | EETLD2G560BJ | 0.45 | 0.15 | 200 |
| | 68 | 22 | 30 | EETLD2G680BJ | 0.51 | 0.15 | 200 |
| | 82 | 22 | 30 | EETLD2G820BJ | 0.58 | 0.15 | 200 |
| | | 25 | 25 | EETLD2G820CJ | 0.58 | 0.15 | 200 |
| | 100 | 22 | 35 | EETLD2G101BJ | 0.66 | 0.15 | 200 |
| | | 25 | 30 | EETLD2G101CJ | 0.66 | 0.15 | 200 |
| | | 30 | 25 | EETLD2G101DJ | 0.66 | 0.15 | 200 |
| | 120 | 22 | 40 | EETLD2G121BJ | 0.78 | 0.15 | 200 |
| | | 25 | 30 | EETLD2G121CJ | 0.78 | 0.15 | 200 |
| | | 30 | 25 | EETLD2G121DJ | 0.78 | 0.15 | 200 |
| | 150 | 22 | 45 | EETLD2G151BJ | 0.85 | 0.15 | 200 |
| | | 25 | 35 | EETLD2G151CJ | 0.85 | 0.15 | 200 |
| | | 30 | 30 | EETLD2G151DJ | 0.85 | 0.15 | 200 |
| | | 35 | 25 | EETLD2G151EJ | 0.85 | 0.15 | 200 |
| | 180 | 25 | 40 | EETLD2G181CJ | 0.95 | 0.15 | 200 |
| | | 30 | 30 | EETLD2G181DJ | 0.95 | 0.15 | 200 |
| | | 35 | 25 | EETLD2G181EJ | 0.95 | 0.15 | 200 |
| | 220 | 25 | 45 | EETLD2G221CJ | 1.24 | 0.15 | 200 |
| | | 30 | 35 | EETLD2G221DJ | 1.24 | 0.15 | 100 |
| | | 35 | 30 | EETLD2G221EJ | 1.24 | 0.15 | 200 |
| 270 | 30 | 40 | EETLD2G271DJ | 1.30 | 0.15 | 100 | |
| | 35 | 30 | EETLD2G271EJ | 1.30 | 0.15 | 200 | |
| 330 | 30 | 45 | EETLD2G331DJ | 1.47 | 0.15 | 100 | |
| | 35 | 35 | EETLD2G331EJ | 1.47 | 0.15 | 100 | |
| 390 | 35 | 40 | EETLD2G391EJ | 1.59 | 0.15 | 100 | |
| * | 470 | 35 | 45 | EETLD2G471EJ | 1.87 | 0.15 | 100 |

Endurance : 105 °C 2000 h, Terminal Pitch : 10 mm

* When capacitors of φ35×45L and φ35×50L are mounted on PWB, reinforce them with mounting clamp or adhesives.
(Avoid using adhesives including halogenated compositions.)

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.