

Surface Mount Type

POSCAP



Series : TPG

Features

- Small size, Low profile (L3.5 × W 2.8 × H 1.1 mm)
- Large capacitance (220 μF max.)
- RoHS compliance, Halogen free

Specifications

| Size code | B1G | B15G |
|----------------------------|---|--|
| Category temperature range | -55 °C to +105 °C | |
| Rated voltage range | 2.5 V.DC to 12.5 V.DC | 2.5 V.DC to 6.3 V.DC |
| Category voltage range | 2.0 V.DC to 10.0 V.DC | 2.0 V.DC to 5.0 V.DC |
| Rated capacitance range | 33 μF to 220 μF | 150 μF to 220 μF |
| Capacitance tolerance | ±20 % (120 Hz / + 20 °C) | |
| Leakage current | Please see the attached characteristics list | |
| Dissipation factor (tan δ) | Please see the attached characteristics list | |
| Surge voltage (V.DC) | Rated voltage × 1.15 | |
| Endurance | +85 °C, 1000 h rated voltage applied | |
| | Capacitance change | Within ±20 % of the initial value |
| | tan δ | ≤ 1.5 times of the initial limit |
| | DC leakage current | Within the initial limit |
| Damp heat (Steady State) | +60 °C, 90 % to 95 %, 500 h, No-applied voltage | |
| | Capacitance change | Within +40 %, -20 % of the initial value |
| | tan δ | ≤ 1.5 times of the initial limit |
| | DC leakage current | ≤ 3 times of the initial limit |

Marking

| R. Voltage (V.DC) | 2.5 | 4.0 | 6.3 | 8.0 | 10.0 | 12.5 |
|-------------------|-----|-----|-----|-----|------|------|
| Code | e | g | j | k | A | B |
| R. Cap. (μF) | 33 | 47 | 100 | 150 | 220 | |
| Code | N7 | S7 | A8 | E8 | J8 | |

Dimensions (not to scale)

| Size code | L ^{+0.3} _{-0.1} | W ^{+0.3} _{-0.1} | H±0.1 | S±0.2 | W1±0.1 |
|-----------|-----------------------------------|-----------------------------------|-------|-------|--------|
| B1G | 3.5 | 2.8 | 1.1 | 0.8 | 2.2 |
| B15G | 3.5 | 2.8 | 1.4 | 0.8 | 2.2 |

Unit : mm

* Externals of figure are the reference.

Characteristics list

| Series | Rated voltage (V.DC) | Rated temp. (°C) | Category voltage (V.DC) | Category temp. (°C) | Rated capacitance (μF) | Case size (mm) | | | Size code | Specifications | | | | Standard | | Floor life | |
|--------|----------------------|------------------|-------------------------|---------------------|------------------------|----------------|-----|------|-----------|--|-----------------------------|---------------------|-----------------------|--------------|--------------------------|--------------------|--------------------|
| | | | | | | L | W | H | | Ripple* ¹ current (mA.r.m.s.) | ESR* ² (mΩ max.) | tan δ* ³ | LC* ⁴ (μA) | Part number | Min. Packaging Qty (pcs) | Reflow Temp ≤260°C | Reflow Temp ≤250°C |
| TPG | 2.5 | 85 | 2.0 | 105 | 220 | 3.5 | 2.8 | 1.1 | B1G | 1000 | 70 | 0.10 | 55.0 | 2R5TPG220M | 2500 | 3 | 3 |
| | | | | | | | | | | 1400 | 30/300 kHz | 0.10 | 110.0 | 2R5TPG220MUG | 2500 | | |
| | 4 | 85 | 3.2 | 105 | 220 | 3.5 | 2.8 | 1.4 | B15G | 1000 | 70 | 0.10 | 88.0 | 4TPG220M | 2500 | | |
| | | | | | | | | | | 6.3 | 85 | 5.0 | 105 | 100 | 3.5 | | |
| | 1100 | 55 | 0.10 | 63.0 | 6TPG100MG | 2500 | | | | | | | | | | | |
| | 1200 | 35/300 kHz | 0.10 | 126.0 | 6TPG100MZGD | 2500 | | | | | | | | | | | |
| | 85 | 5.0 | 105 | 150 | 3.5 | 2.8 | 1.4 | B15G | 1000 | | 70 | 0.10 | 94.5 | 6TPG150M | 2500 | | |
| | | | | | | | | | 1200 | | 35/300 kHz | 0.10 | 189.0 | 6TPG150MZG | 2500 | | |
| | | | | | | | | | 8 | | 85 | 6.3 | 105 | 47 | 3.5 | | |
| | 10 | 85 | 8.0 | 105 | 47 | 3.5 | 2.8 | 1.1 | | B1G | | | | | | | |
| | | | | | | | | | 12.5 | | 85 | 10.0 | 105 | 33 | 3.5 | | |

*1 Ripple current (100 kHz/ +45 °C), *2 ESR (100 kHz/+20 °C) *3 tan δ (120 Hz/+20 °C) *4 After 5 minutes

◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

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