

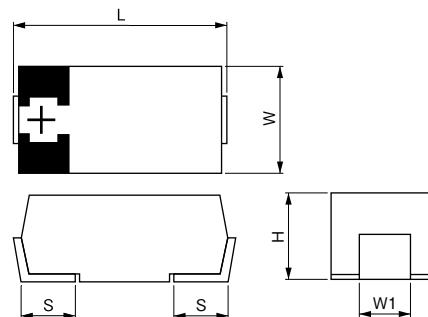


TPG series is designed to be small, have a low-profile and large capacitance .
Suitable for the space sensitive electronic devices.

Specifications

| Items | Condition | Specifications | | | | | |
|--|---|--|---------------------|---------------------------------------|-----|----|------|
| Rated voltage (V) | — | 2.5 | 4.0 | 6.3 | 8.0 | 10 | 12.5 |
| Surge voltage (V) | — | 2.9 | 4.6 | 7.2 | 9.2 | 12 | 14 |
| Category temperature range (°C) | — | -55 to +105 | | | | | |
| Capacitance tolerance (%) | 120Hz/20°C | M : ±20 | | | | | |
| Rated capacitance range (μF) | 120Hz/20°C | 33 to 220 | | | | | |
| Dissipation Factor (DF) | 120Hz/20°C | Please see the attached characteristics list | | | | | |
| Leakage current | Rated voltage applied, after 5 minutes | Please see the attached characteristics list | | | | | |
| Equivalent series resistance (ESR) | 100kHz/20°C | Please see the attached characteristics list | | | | | |
| Characteristics of impedance ratio at high temp. and low temp. | 100kHz/+20°C | -55°C | Z/Z _{20°C} | 0.6 to 2.0 | | | |
| | | +105°C | Z/Z _{20°C} | 0.6 to 2.0 | | | |
| Endurance | 85°C, 1,000h, rated voltage applied | △C/C | | Within±20% of the initial value | | | |
| | | DF | | ≤ 1.5 times of the initial limit | | | |
| | | LC | | Within the initial limit | | | |
| Damp heat (Steady State) | 60°C, 90 to 95%RH, 500h, No-applied voltage | △C/C | | Within+40%, -20% of the initial value | | | |
| | | DF | | ≤ 1.5 times of the initial limit | | | |
| | | LC | | ≤ 3 times of the initial limit | | | |
| Surge | 85°C, 1,000 cycles, 1kΩ discharge resistance, surge voltage applied | △C/C | | Within±5% of the initial value | | | |
| | | DF | | Within the initial limit | | | |
| | | LC | | ≤ 3 times of the initial limit | | | |

Dimensions



(unit: mm)

| 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 |

Size list

RV : Rated voltage

| RV μF | 2.5 | 4.0 | 6.3 | 8.0 | 10 | 12.5 |
|----------|----------|------|------|------|-----|------|
| 33 | | | | | | B1G |
| 47 | | | | | B1G | B1G |
| 100 | | | | B1G | | |
| 150 | | | | B15G | | |
| 220 | B1G,B15G | B15G | B15G | | | |

TPG series characteristics list

| Size code | Part number | Rated voltage (V) | Rated temperature (°C) | Rated capacitance (μF) | Category voltage (V) | Category temperature (°C) | DF (% max) | LC (μA max/5min.) | ESR (mΩmax) 100kHz/20°C | MSL | | |
|-----------|--------------------------|-------------------|------------------------|------------------------|----------------------|---------------------------|------------|-------------------|-------------------------|----------------------|----------------------|---|
| | | | | | | | | | | Reflow temp. ≤ 260°C | Reflow temp. ≤ 250°C | |
| B1G | 12TPG33M | 12.5 | 85 | 33 | 10 | 105 | 10.0 | 41.3 | 70 | 1000 | 3 | 3 |
| B1G | 10TPG47M | 10 | 85 | 47 | 8.0 | 105 | 10.0 | 47.0 | 70 | 1000 | 3 | 3 |
| B1G | 8TPG47M | 8.0 | 85 | 47 | 6.4 | 105 | 10.0 | 37.6 | 70 | 1000 | 3 | 3 |
| B1G | 6TPG100M | 6.3 | 85 | 100 | 5.0 | 105 | 10.0 | 63.0 | 70 | 1000 | 3 | 3 |
| B1G | 6TPG100MG | 6.3 | 85 | 100 | 5.0 | 105 | 10.0 | 63.0 | 55 | 1100 | 3 | 3 |
| B1G | 2R5TPG220M | 2.5 | 85 | 220 | 2.0 | 105 | 10.0 | 55.0 | 70 | 1000 | 3 | 3 |
| B15G | 6TPG220MZG ^{※2} | 6.3 | 85 | 220 | 5.0 | 105 | 10.0 | 277.2 | 35/300kHz | 1200 | 3 | 3 |
| B15G | 6TPG150M | 6.3 | 85 | 150 | 5.0 | 105 | 10.0 | 94.5 | 70 | 1000 | 3 | 3 |
| B15G | 6TPG150MZG | 6.3 | 85 | 150 | 5.0 | 105 | 10.0 | 189.0 | 35/300kHz | 1200 | 3 | 3 |
| TA | 4TPG220M | 4.0 | 85 | 220 | 3.2 | 105 | 10.0 | 88.0 | 70 | 1000 | 3 | 3 |
| TV | 2R5TPG220MUG | 2.5 | 85 | 220 | 2.0 | 105 | 10.0 | 110.0 | 30/300kHz | 1400 | 3 | 3 |

※1 100k to 500kHz, 45°C ※2 Under development

※ Red letters : New models