

3W to 10W Planar High Power Resistors

BPC Series

- Non-Inductive planar package
- High power density.
- Thin package for high density PCB installation.
- Power dissipated above the board.

Applications

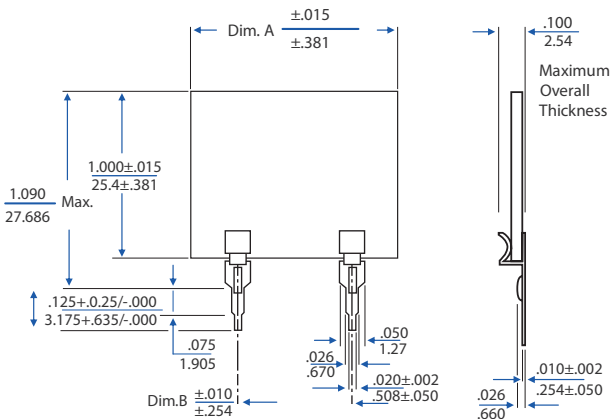
- Power supply pre-load resistors.
- UPS systems
- Snubber and pulse handling circuits.
- Pulse generator load resistors.
- In-rush current protection
- Bleeder Resistors



 All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Specification (Dimensions)

| Model | BPC3 | BPC5 | BPC7 | BPC10 |
|-------|---------------|---------------|---------------|---------------|
| Dim A | 0.40 10.16 | 0.50 12.70 | 0.75 19.05 | 1.00 25.40 |
| Dim B | 0.20 5.08 | 0.20 5.08 | 0.50 12.70 | 0.80 20.32 |



Materials

Leads:
Tin Plated Copper Alloy
Substrate: 96% Alumina
Resistor: Thick Film

Notes:

1. Contact factory for custom products, non-standard values and tolerances.

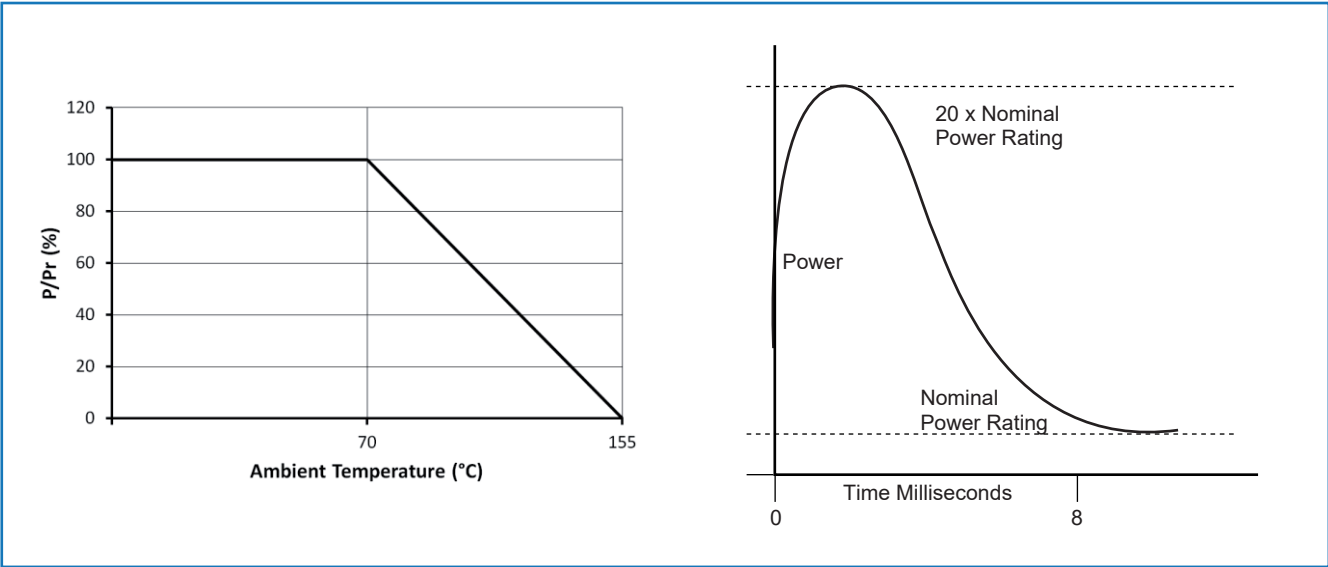
| Items | Specification | Conditions |
|------------------------------|-----------------------------|---|
| Power Rating | 3W, 5W, 7.5W & 10W | @ ambient temp < 70°C |
| Operating Voltage Max | 300Vac, 500VDC | |
| Resistance Range | 0.1Ω to 200 KΩ | Extended resistance range available. |
| TCR | 100 ppm/°C | For -55 to +155°C and above 1Ω. |
| Tolerance | 10, optional +/-5% , 1%, 2% | |
| Operating Temp. Range | -55 - +155 °C | |
| Dielectric Withstand Voltage | 5000 Volts minimum | |
| Mechanical Shock | ΔR +/- 0.25 % | 100G. |
| Vibration | ΔR +/- 0.25 % | 20G, 10 to 2KHz |
| Load Life | ΔR +/- 2.0 % | 70°C, 90 min. ON, 30 min.OFF, 1000 hours. |
| Humidity | ΔR +/- 0.5 % | 85°C, 85% RH, DC 0.1W, 1000 hours. |
| Temperature Cycle | ΔR +/- 0.5% | -55°C, 30 min.,+155°C 30min., 5cycles. |
| Solder Heat (Max) | ΔR +/- 0.25 % | 260+/-5°C, 10 seconds, |
| Solderability | Min 95% coverage | 230+/-5°C, 5 seconds. |
| Insulation Resistance | Over 1000 MΩ | |

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Derating Curve

Overload Characteristic



Ordering Information

Example: **BPC10103G** (BPC10, 10 kilohms ±2%, Pb-free)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|--|---|
| B | P | C | 1 | 0 | 1 | 0 | 3 | | | G |
| | | | 1 | | 2 | | | 3 | | |

| 1 | 2 | 3 |
|-------|-------------------------|-----------|
| Type | Value | Tolerance |
| BPC3 | 2 digits + multiplier | F = ±1% |
| BPC5 | xRx for values <10 ohms | G = ±2% |
| BPC7 | 0Rxxx for values <1 ohm | J = ±5% |
| BPC10 | | K = ±10% |

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