

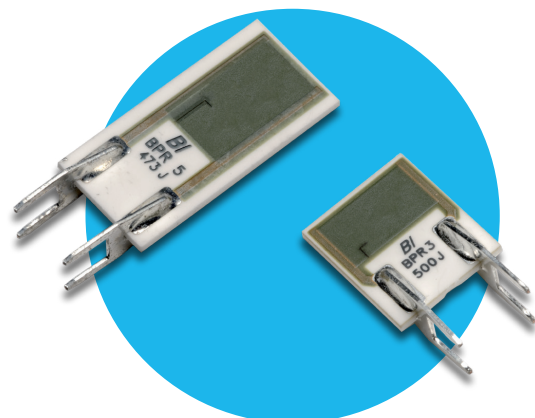
## 3W to 50W Planar Shock / Vibration Proof High Power Resistors

### BPR Series

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

### Applications

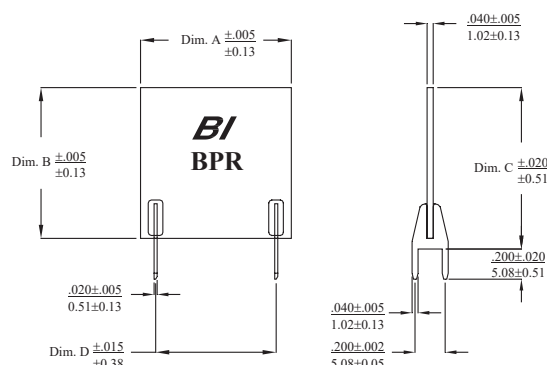
- Ideal for extreme mechanically stressed environments.
- Power supply pre-load resistors.
- UPS systems
- Snubber and pulse handling circuits.
- Pulse generator load resistors.
- In-rush current protection
- Bleeder Resistors



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

## Specification, Dimensions and Materials

Model	BPR 3	BPR 5	BPR 7	BPR 10	BPR 30	BPR 50
Dim A	0.50 12.70	0.50 12.70	1.00 25.40	1.00 25.40	2.10 53.34	2.10 53.34
Dim B	0.60 15.24	1.00 25.40	0.75 19.05	1.00 25.40	1.40 35.56	2.00 50.80
Dim C	0.67 17.02	1.07 27.18	0.82 20.82	1.07 27.18	1.47 37.34	2.07 52.58
Dim D	0.30 7.62	0.30 7.62	0.80 20.32	0.80 20.32	1.90 48.26	1.90 48.26
Lead: Tin Plated Copper Alloy Substrate: 96% Alumina Resistor: Thick Film						



### Notes:

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

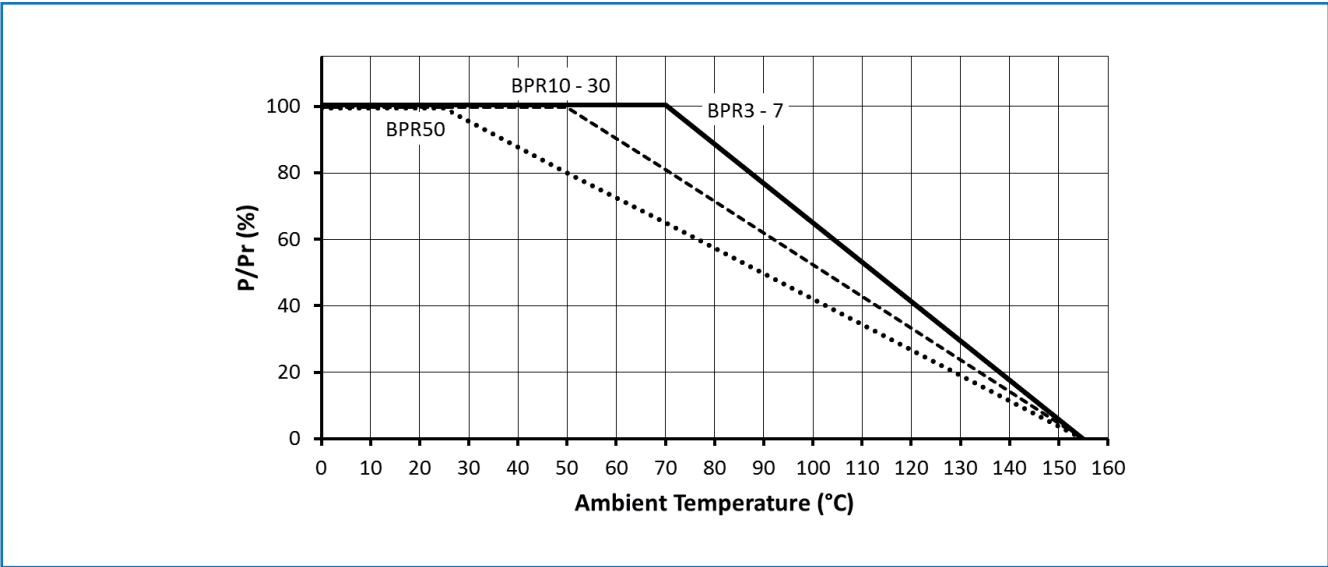
Items	Specification	Conditions
Power Rating	3W, 5W, 7W, 10W, 30W & 50W	@ ambient temp 70°C (3 - 7W), 50°C (10 - 30W) & 25°C (50W)
Operating Voltage Max	300Vac, 500VDC	
Resistance Range	BPR3-30: 0.1Ω to 200 kΩ BPR50: 1Ω to 1 kΩ	Extended resistance range available.
TCR	100 ppm/°C	For -55 to +155°C and above 1Ω
Tolerance	+/-5%, optional 1%, 2%	
OperatingTemp. Range	-55 - +155 °C	
Dielectric Withstand Voltage	5KV minimum	
Mechanical Shock	ΔR +/- 0.25 %	100G.
Load Life	ΔR +/- 2.0 %	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 %	250+/-5°C, 10 seconds,
Solderability	Min 95% coverage	230+/-5°C, 5 seconds.
Insulation Resistance	Over 1000 MΩ	Between terminals and metal back plate.
Vibration	ΔR +/- 0.25 %	20G, 10Hz to 2 KHz.

### 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.

BPR Series

Derating Curve



Ordering Information

Example: BPR10500F (BPR10, 50 ohms  $\pm 1\%$ , Pb-free)

B	P	R	1	0	5	0	0		F
			1		2			3	

1	2	3
Type	Value	Tolerance
BPR3	2 digits + multiplier	F = $\pm 1\%$
BPR5	xRx for values <10 ohms	G = $\pm 2\%$
BPR7	0Rxxx for values <1 ohm	J = $\pm 5\%$
BPR10		
BPR30		
BPR50		

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