

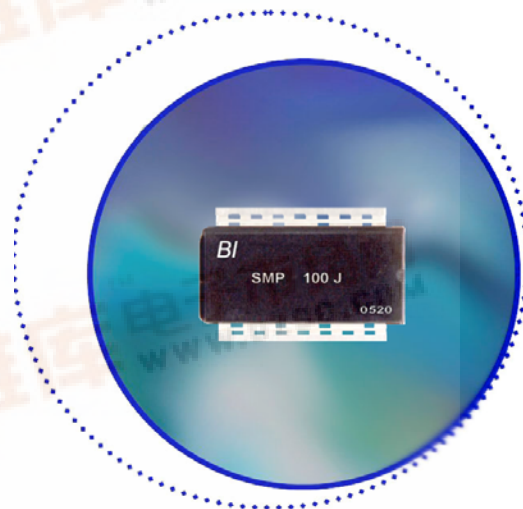
SURFACE MOUNT MOULDED POWER RESISTOR

Features

- Non-Inductive, Moulded Small, in circuit 10W.
- Very low thermal resistance in multiple planes
- SOIC type Package.
- RoHS compliant.

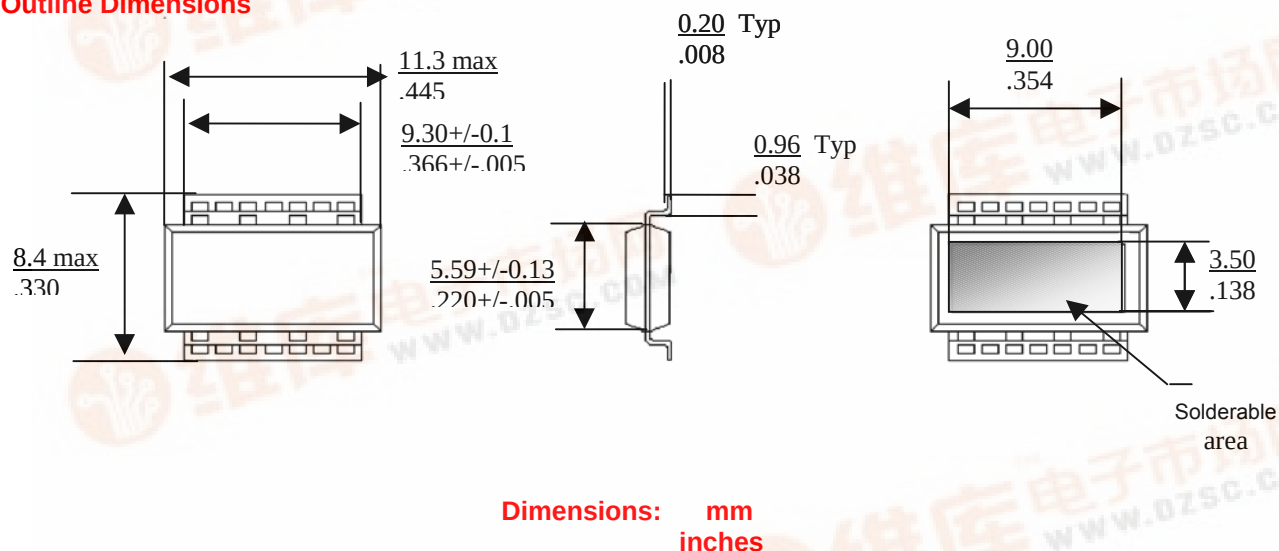
Applications

- High frequency emitter resistors in switching power supplies.
- High precision CRT color video amplifiers.
- High frequency snubber and pulse handling circuits.
- Pulse generator load resistors.
- In-rush current protection
- Bleeder Resistors



Specification

Outline Dimensions

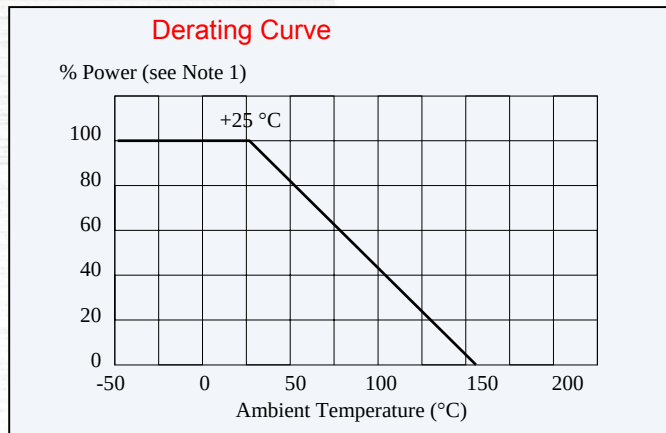


Specifications subject to change without notice.

Items	Specification	Test Conditions
Power Rating	10 Watts	25°C ambient. Note 1
Short time overload	50W for 5s	25°C ambient. Note 1
Resistance Range (Ω)	10 to 10K	
Nominal Resistance Series	E12	
TCR(ppm/°C), see note 2.	100ppm/°C 10 Ω and above	-55°C to +155 °C
Tolerance	+/-1% & +/-5%	
Operating Temp. Range	-55°C to +155°C	
Max. Operating Voltage	500VDC or $\sqrt{P \cdot R}$	
Dielectric Withstanding Voltage.	4000 V DC	60 seconds.
Load Life	ΔR +/- (1 % + 0.05 Ω)	25°C, 90 min.ON, 30min.OFF, 1000hours.
Humidity	ΔR +/- (1 % + 0.05 Ω)	40°C, 90-95%RH, DC 0.1W, 1000 hours.
Temp. Cycle	ΔR +/- (0.25% + 0.05 Ω)	-55°C,30 min.,+155°C,30 min., 5cycles
Soldering Heat (Max)	ΔR +/- (0.25 % + 0.05 Ω)	250+/-5°C, 3seconds,
Solderability	Min. 95% coverage	230+/-5°C, 3seconds.
Insulation Resistance	Over 1,000 Meg Ω	Between terminals and tab.
Vibration	ΔR +/- (0.25% + 0.05 Ω)	

Notes:

- Tested in accordance with JD51 mounting instructions, in 5W application 10W available.
- Contact factory for values below 10 Ω .
- Contact factory for custom products, non-standard values and tolerances



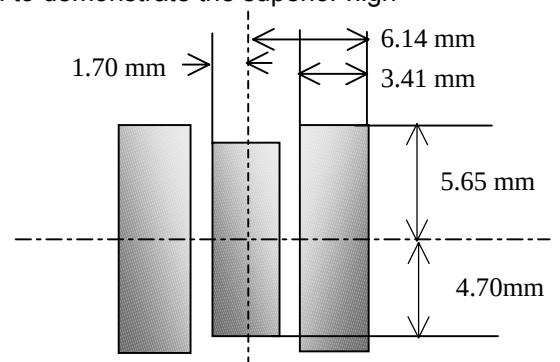
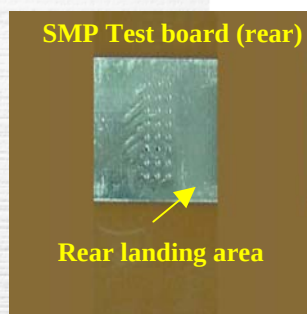
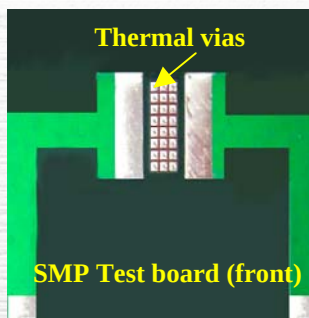
Mounting Guidelines

Introduction

The power resistor has extremely low thermal resistances in each axis for maximum conducted, radiated and convection heat dissipation. Using the JEDEC standard JD-51 as a guideline, coupled with your thermal design experience in power semiconductors, you can maximise the potential of this unique SOIC style power resistor.

5W PCB Example

A small 40mm x 40mm, 5W, 4-layer test board configuration is illustrated to demonstrate the superior high performance of the SMP power resistor using minimum real estate.



Solder Pad Layout

10W PCB Example

Mounting details available on request.

Ordering Information

Model	Resistance Code	Tolerance
SMP	100	J
10Ω : 100 50 Ω : 500 First two digits significant, last digit: number of trailing zeros		
1%: F 5%: J		