

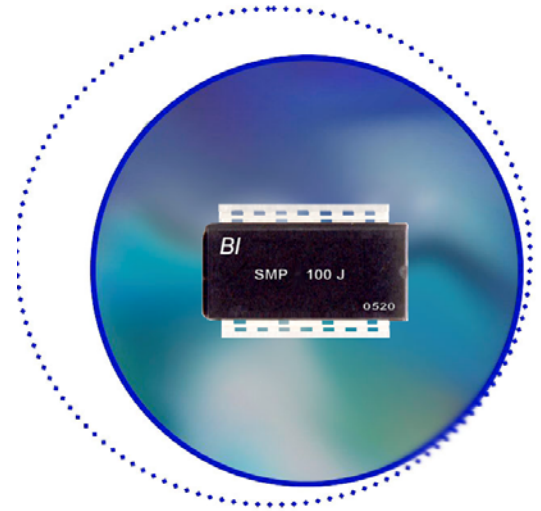
## SURFACE MOUNT MOULDED POWER RESISTOR

### Features

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

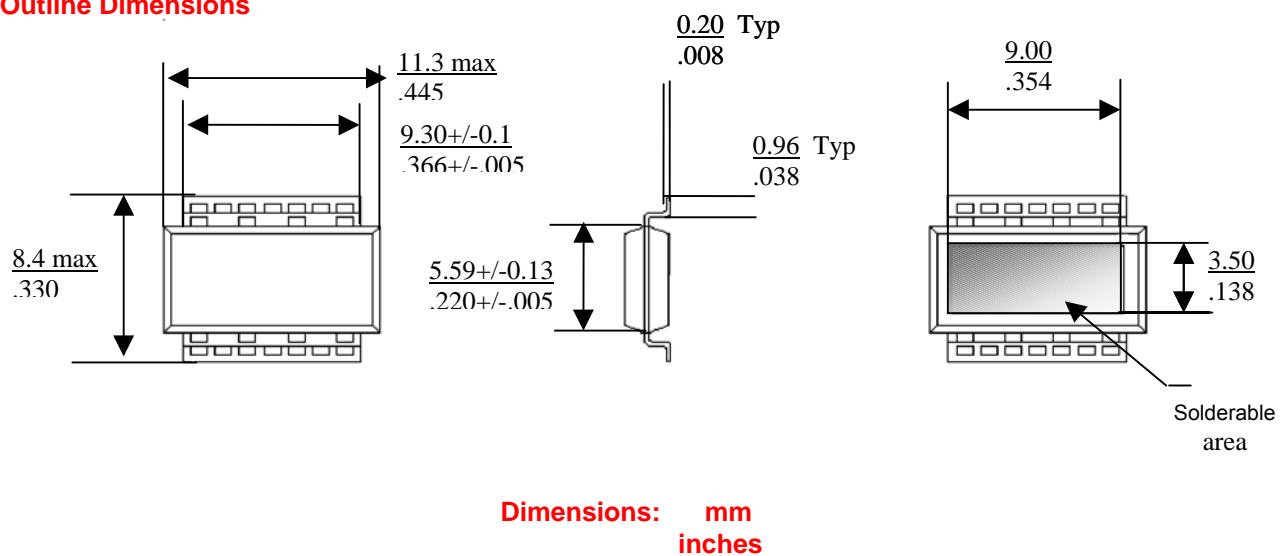
### Applications

- 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



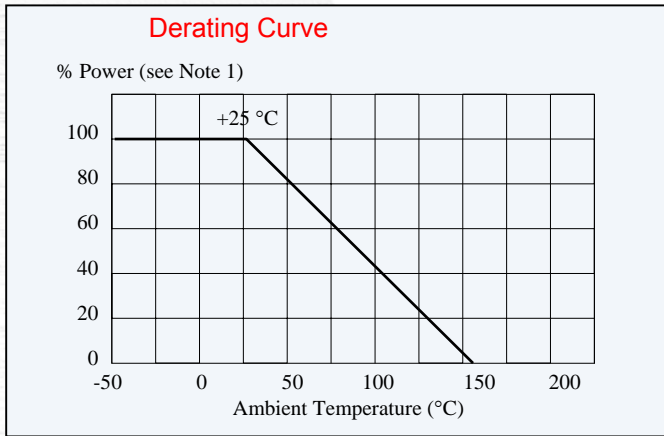
Specifications subject to change without notice.

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 10Ω and above	-55°C to +155 °C
Tolerance	+/-1% & +/-5%	
Operating Temp. Range	-55°C to+155°C	
Max. Operating Voltage	500VDC or √(P.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:

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

SMP



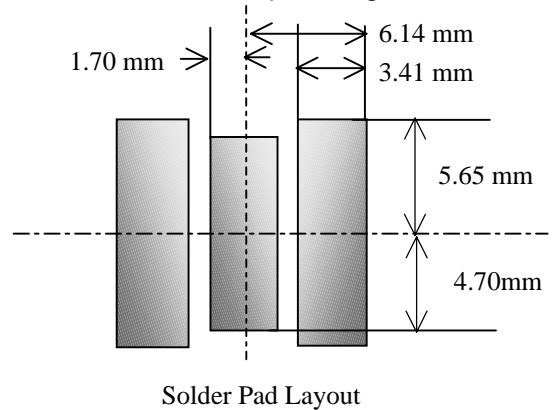
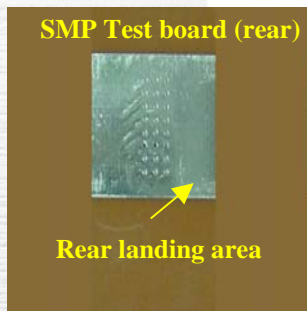
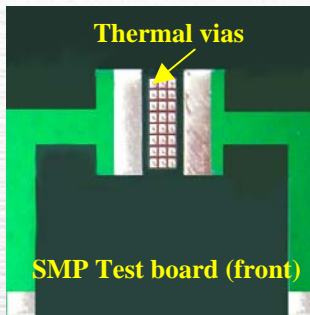
## Mounting Guidelines

### 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.



### 10W PCB Example

Mounting details available on request.

## Ordering Information

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

SMP