

## Features

- Formerly a Riedon™ product
- Resistance values as low as 0.025  $\Omega$
- Power rating to 25 watts
- Load stability to  $\pm 0.5\%$
- TO-126 housing
- Thick film technology
- High reliability

## Applications

- Power supplies
- Stepper motor drives
- Input amplifiers

## PSD126 Series – Riedon™ SMD Power Resistors by Bourns

### Specifications

Bourns Model	PSD126			
Resistance Range ( $\Omega$ )	0.025 to 0.049	0.05 to 0.099	0.1 to 0.99	1 to 10k
Power Rating (W) @ 70 °C with Heat Sink	25			
Tolerance (%)	2 / 5		1 / 2 / 5	
TCR (PPM/°C)	$\pm 500$	$\pm 400$	$\pm 300$	$\pm 100$
Dielectric Withstanding Voltage	2000 VDC			

### Additional Information

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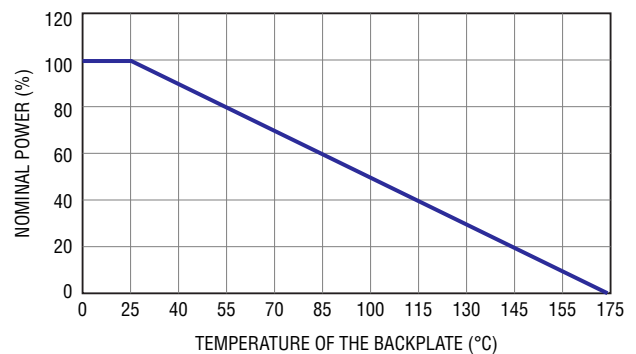


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### Environmental Characteristics

Specification	Value
Operating Temperature	-40 °C to +175 °C
Thermal Resistance	6.0 K/W
Storage Conditions Temperature Humidity	+5 °C to +35 °C 40 % to 75 %
Moisture Sensitivity Level	1

### Current Rating Thermal Derating Curve



These resistors must be attached to a suitable heat sink. The maximum internal resistor temperature is +175 °C.

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**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.

See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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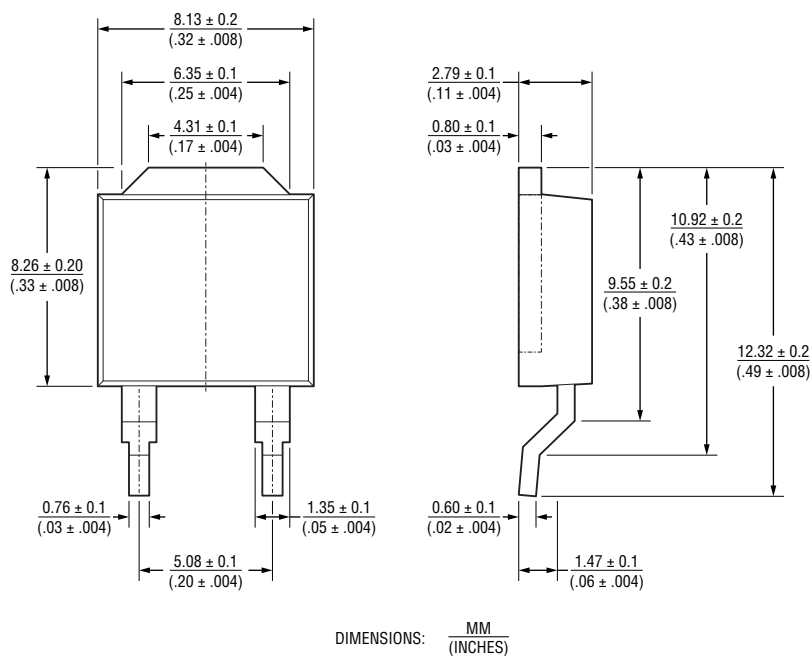
# PSD126 Series – Riedon™ SMD Power Resistors by Bourns

**BOURNS®**

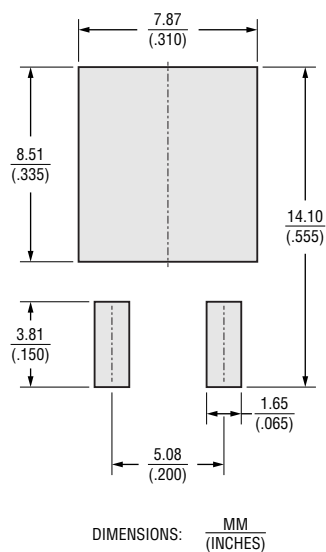
## Performance Characteristics

Test	Conditions	Test Method	
		Reference	Limit
Load Life	1000 hours, ON/OFF with rated power at +25 °C	MIL-STD-202 Method 108	$\Delta R < \pm 1 \%$
High Temperature Exposure	+155 °C for 1000 hours	MIL-STD-202 Method 303	$\Delta R < \pm 1 \%$
Low Temperature Storage	-40 °C for 24 hours	MIL-STD-202 Method 303	$\Delta R < \pm 1 \%$
Thermal Shock	-40 °C to +130 °C, 5 cycles	MIL-STD-202 Method 107	$\Delta R < \pm 1 \%$
Humidity Resistance	+40 °C / 90 % for 240 hours	MIL-STD-202 Method 103	$\Delta R < \pm 1 \%$
Resistance to Solder Heat	Solder dipping at 260 °C for 10 sec.	MIL-STD-202 Method 210	$\Delta R < \pm 1 \%$
Short Time Overload	2.5x rated power for 5 sec.	MIL-STD-202 Method 303	$\Delta R < \pm 1 \%$

## Product Dimensions



## Suggested Layout



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# PSD126 Series – Riedon™ SMD Power Resistors by Bourns

**BOURNS®**

## How To Order

**PSD126 - F W - R005 E**

Model \_\_\_\_\_  
PSD126

Resistance Tolerance \_\_\_\_\_  
F =  $\pm 1\%$   
G =  $\pm 2\%$   
J =  $\pm 5\%$

TCR (PPM/°C) \_\_\_\_\_  
W =  $\pm 500$   
Z =  $\pm 400$   
V =  $\pm 300$   
X =  $\pm 100$

Resistance Value Code \_\_\_\_\_  
<100  $\Omega$ : "R" represents decimal point  
(example: R005 = 0.005  $\Omega$ , 5R00 = 5.00  $\Omega$ )  
 $\geq 100 \Omega$ : First three digits are significant;  
fourth digit represents number of zeroes to follow.  
(example: 2501 = 2500  $\Omega$ )

Packaging \_\_\_\_\_  
E = Embossed Tape (500 pcs.) on 7-inch plastic reel

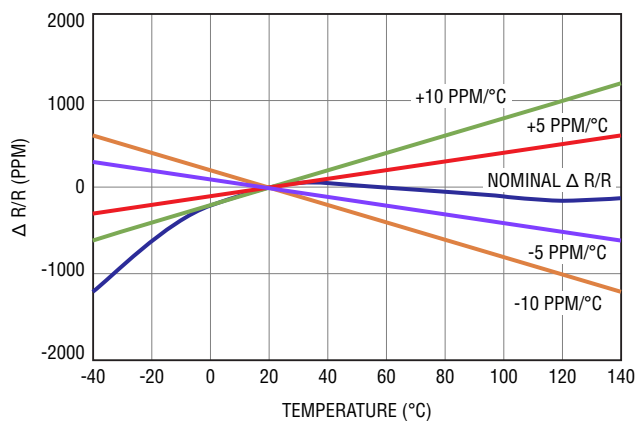
## Popular Resistance Values

Code	Resistance Value	Code	Resistance Value	Code	Resistance Value
R025	0.025 $\Omega$	1R00	1.00 $\Omega$	1001	1000 $\Omega$
R050	0.050 $\Omega$	2R00	2.00 $\Omega$	1501	1500 $\Omega$
R075	0.075 $\Omega$	5R00	5.00 $\Omega$	2001	2000 $\Omega$
R100	0.100 $\Omega$	10R0	10.00 $\Omega$	2501	2500 $\Omega$
R200	0.200 $\Omega$	25R0	25.00 $\Omega$	5001	5000 $\Omega$
R250	0.250 $\Omega$	30R0	36.00 $\Omega$	7501	7500 $\Omega$
R300	0.300 $\Omega$	47R0	47.00 $\Omega$		
R360	0.360 $\Omega$	50R0	50.00 $\Omega$		
R500	0.500 $\Omega$				

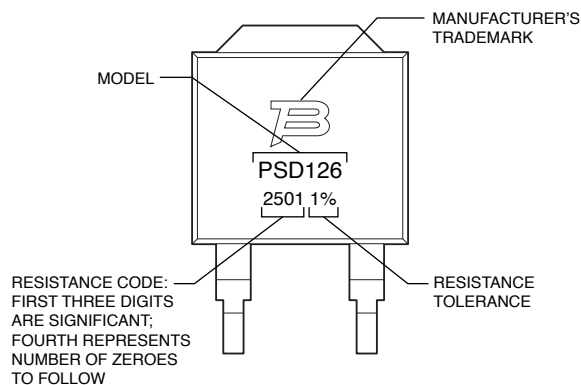
## Packaging Information

13-inch reel ..... 500 pcs. per reel

## Temperature Coefficient Chart



## Typical Part Marking



REV. 11/25

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