

## Features

- Formerly a Riedon™ product
- Resistance values as low as 0.025 Ω
- Power rating to 25 watts
- Load stability to ±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 (Ω)	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)	±500	±400	±300	±100
Dielectric Withstanding Voltage	2000 VDC			

### Additional Information

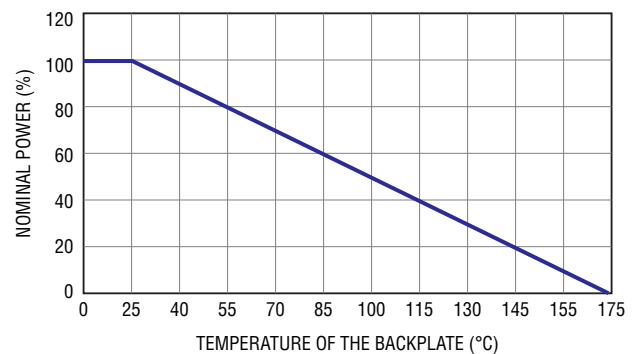
Click these links for more information:



### 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.

## BOURNS®

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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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In April 2023, BE Services Company, Inc., a subsidiary of Bourns, Inc., purchased certain assets of Riedon, Inc., including its logo and trademarks and the right to continue to manufacture former Riedon™ products.

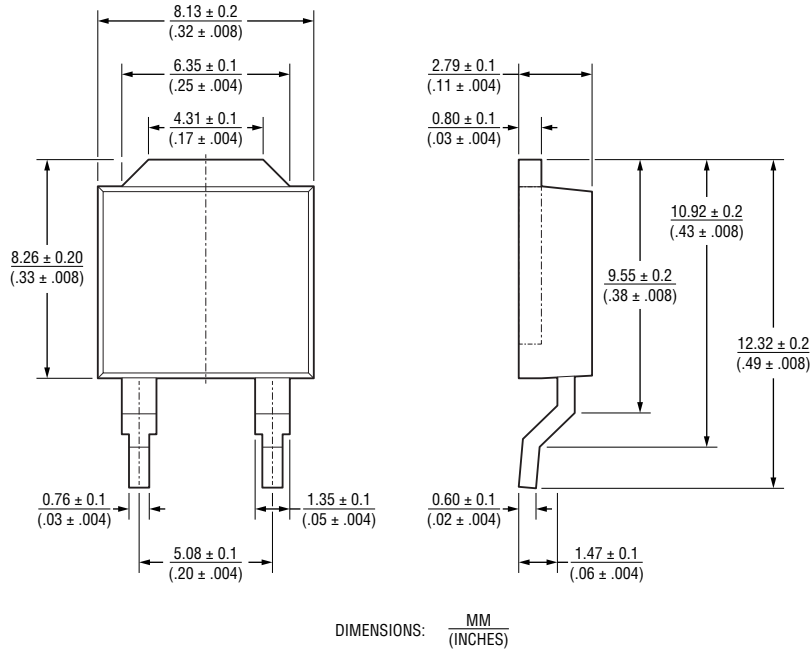
“Riedon Logo” is a registered trademark of BE Services Company, Inc., in the United States.

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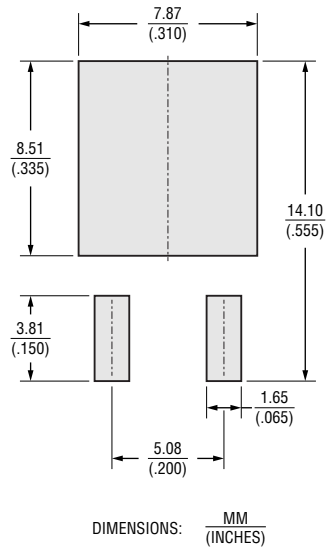
**Performance Characteristics**

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



## How To Order

**PSD126 - F W - R005 E**

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

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

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

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

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

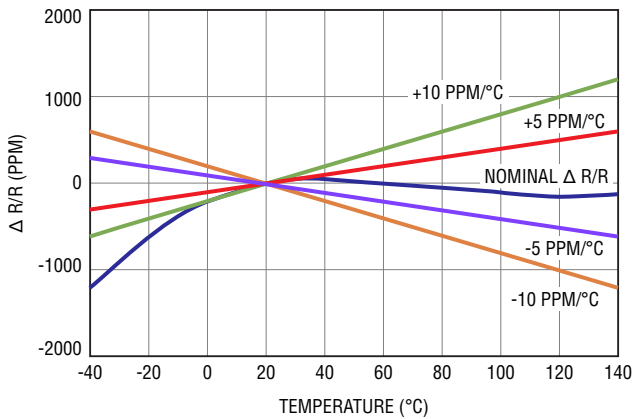
## Popular Resistance Values

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

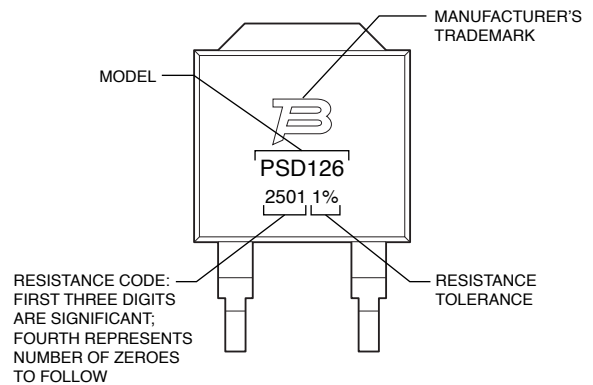
## Packaging Information

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

## Temperature Coefficient Chart



## Typical Part Marking



REV. 11/25

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