

## Features

- Formerly a Riedon™ product
- Resistances from 0.1 to 20K ohms
- Power rating to 100 watts
- Resistance tolerances to  $\pm 1\%$
- High stability film resistance elements
- Back plate isolated from both pins

- Low inductance
- Excellent pulse handling
- TO-247 housing
- RoHS compliant\*

## PF2472 Series – Riedon™ TO-247 Power Resistors by Bourns

### Electrical Characteristics

Characteristic	Model
	PF2472
Power Rating (with heat sink) <sup>1</sup>	100 W
Power Rating (without heat sink) <sup>2</sup>	3 W
Thermal Resistance	1.3 °C/W
Resistance Range <sup>3</sup>	0.1 (min.) to 20K (max.) ohms
Tolerances	$\pm 1\%$ $\pm 5\%$
Temperature Coefficient	$\pm 200$ PPM/°C ( $R \geq 20 \Omega$ ) $\pm 300$ PPM/°C ( $0.1 \Omega \leq R < 20 \Omega$ )

Notes:

1. Power rating based on 25 °C flange temperature
2. Power rating based on 25 °C ambient temperature.
3. Consult factory for higher or lower values.

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### General Specifications

Temperature Range.....-55 °C to +175 °C  
 Dielectric Strength .....2500 VAC  
 Max. Operating Voltage  
       .....700 V or  $\sqrt{P \cdot R}$ , whichever is less  
 Inductance..... 50 nH  
 Insulation Resistance ...>1000 megohms  
 Terminal Finish .....Tin-plated copper  
 Mass .....6.3 g  
 Flammability Rating .....94-V0

### Environmental Performance

Specification	$\Delta R$	Test Conditions
Load Life	$\pm 1\% + 0.05 \Omega$	25 °C, 90 min. on, 30 min. off, 1000 hrs.
Humidity Resistance	$\pm 1\% + 0.05 \Omega$	40 °C, 90-95 % RH, DC 0.1 W, 1000 hrs.
Temperature Cycle	$\pm 0.25\% + 0.05 \Omega$	-55 °C for 30 min., +155 °C for 30 min., 5 cycles
Solder Heat	$\pm 0.1\% + 0.05 \Omega$	+350 °C, 3 s.
Vibration	$\pm 0.25\% + 0.05 \Omega$	0.35 mm or 50 m/s <sup>2</sup> , 10 Hz-500 Hz-10 Hz 2 hr/axis



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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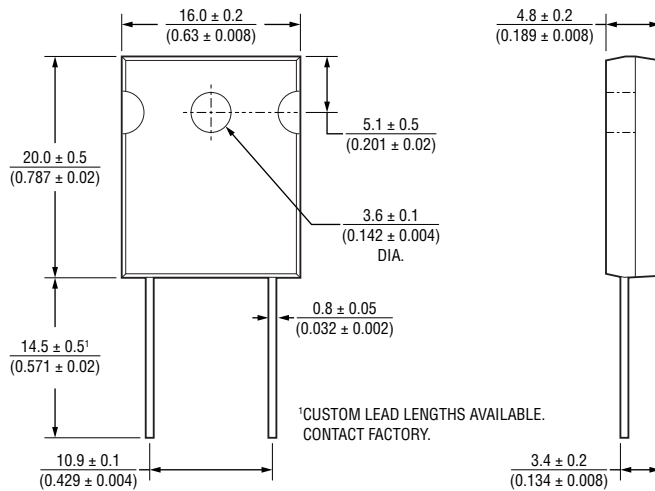
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## PF2472 Series – Riedon™ TO-247 Power Resistors by Bourns

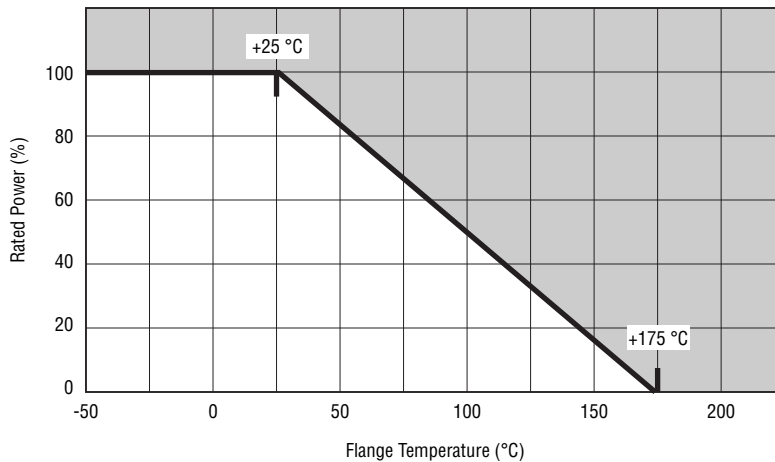
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### Product Dimensions



DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

### Derating Curve



### Power Rating Notes

The PF2472 Series Power Resistors must be attached to a suitable heat sink. The maximum internal resistor temperature is 175 °C.

To specify an appropriate heat sink use the following formula:

$$R_{\theta H} = \frac{T_{MAX} - (P * R_{\theta R}) - T_A}{P}$$

Where:  $R_{\theta H}$  = Thermal Resistance of Heat Sink (°C/W)  
 $R_{\theta R}$  = Thermal Resistance of Resistor (°C/W)  
 $T_{MAX}$  = Maximum Temperature of Resistor  
 $T_A$  = Ambient Temperature of Heat Sink (°C)  
 $P$  = Power Through Resistor (W)

### How to Order

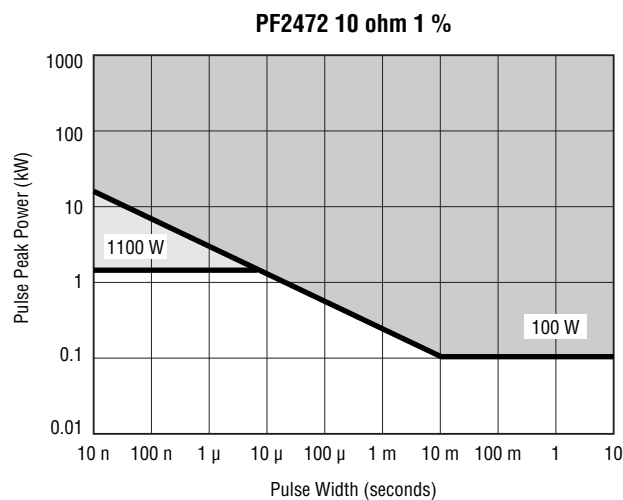
Model **PF2472 - 1R J 1**  
 PF2472  
 Resistance Code \_\_\_\_\_  
 For values <1K Ω,  
 "R" represents decimal point  
 (Example: 0R1 = 0.1 Ω);  
 For values 1K-10K Ω,  
 "K" represents decimal point  
 (Example 1K = 1K Ω,  
 1K5 = 1.5K Ω)  
 Tolerance \_\_\_\_\_  
 F = ±1 %  
 J = ±5 %  
 Internal Use \_\_\_\_\_

### Packaging Specifications

Tube ..... 25 pcs. per tube

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**Pulse Durability**



Tentative continuous pulse power allowance at duty 0.01. Load life test will be necessary in actual equipment because curve may be changed by resistance, repetition, duty, and operating temperature.

**BOURNS®**

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