

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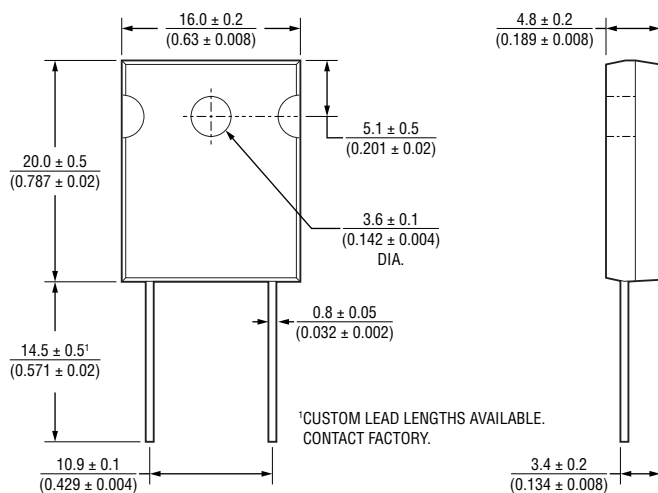
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## PF2472 Series – Riedon™ TO-247 Power Resistors by Bourns

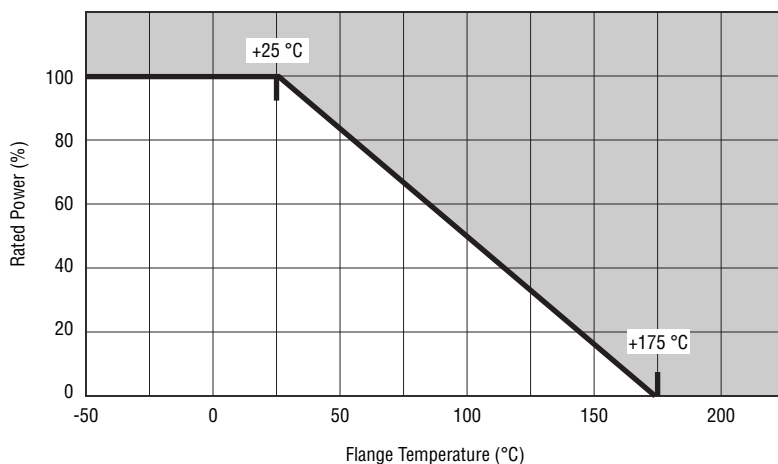
**BOURNS®**

### 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

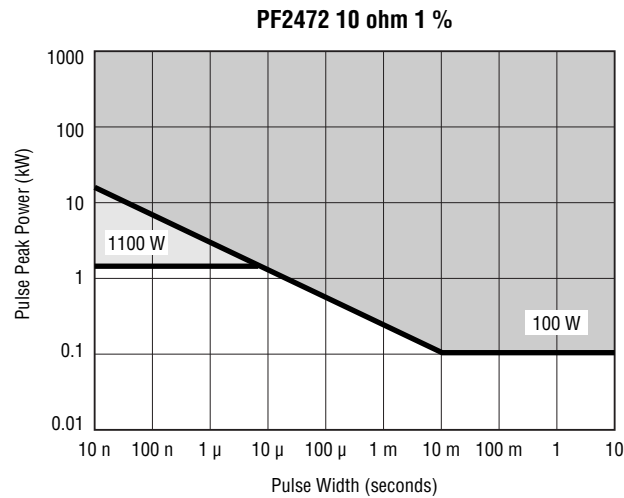
Model **PF2472 - 1R J 1**  
 PF2472  
 Resistance Code \_\_\_\_\_  
 For values <1K Ω,  
 "R" represents decimal point  
 (Example: 0R1 = 0.1 Ω);  
 For values 1K-10K Ω,  
 "K" represents decimal point  
 (Example 1K = 1K Ω,  
 1K5 = 1.5K Ω)  
 Tolerance \_\_\_\_\_  
 F = ±1 %  
 J = ±5 %  
 Internal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

**Americas:** Tel: +1 951-781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

**Mexico:** Tel: +52-614-478-0400 • Email: [mexicus@bourns.com](mailto:mexicus@bourns.com)

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