

Features

- Formerly a Riedon™ product
- Resistances from 0.1 ohms to 100K ohms
- Power rating to 300 watts
- Resistance tolerances to ±1 %
- TCR of ±100 ppm/°C
- TO-227 (TO-238) housing
- Isolated backplate
- Moisture resistant encapsulation
- M4x5mm screws included
- Isolated back plate
- Excellent pulse handling
- RoHS compliant*

PF2270 Series – Riedon™ Power Resistors by Bourns

Electrical Characteristics

Characteristic	Model	
	PF2272	PF2274
Power Rating (with heatsink)	200 W	300 W
Power Rating (without heatsink)	5 W	5 W
Resistance Range	0.1 to 100K ohms	0.1 to 1K ohms
Resistance Values	E24	
Thermal Resistance	0.35 °C/W	0.23 °C/W
Tolerances	5 % (1 % optional)	
Temperature Coefficient	±100 ppm/°C	
Operating Temperature	-55 °C to +155 °C	
Inductance	14 nH	
Max. Continuous Voltage	$\sqrt{P * R}$, 700 V max.	
Max. Continuous Current	100 A	
Isolation Voltage	2500 VAC	
Load Life (25 °C, 90 m ON, 30 m OFF, 1000 hr)	±1 %	
Humidity (40 °C, 90-95% RH, DC 0.1 W, 1000 hr)	±1 %	
Temp. Cycle (-55 °C 30 m, 120 °C 30 m, 20X)	±1 %	
Vibration (0.75 mm, 100 m/s ² , 10-54 Hz, 10X, XYZ)	±0.25 %	
Insulation Resistance	> 1000 Megohms	
Flammability	UL94 V-0	
Weight (grams)	20	30
Torque	Terminals: 1.0 Nm max. / 0.6 Nm Recommended Mounting: 1.6 Nm max. / 1 Nm Recommended	

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Additional Information

Click these links for more information:



WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

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

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

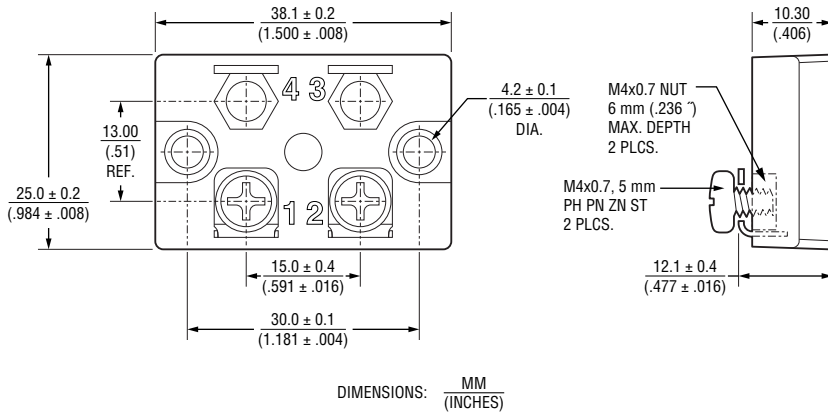
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In April 2023, BE Services Company, Inc., a subsidiary of Bourns, Inc., purchased certain assets of Riedon, Inc., including its logo and trademarks and the right to continue to manufacture former Riedon™ products.

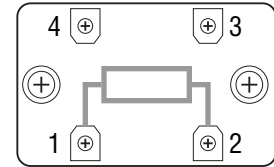
“Riedon Logo” is a registered trademark of BE Services Company, Inc., in the United States.

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Product Dimensions

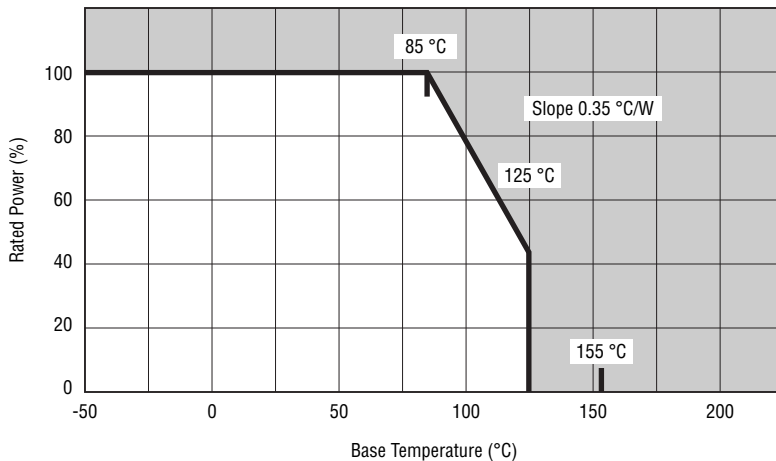


Terminal Configuration & Schematics



STANDARD
PF2272
PF2274

Derating Curve



Power Rating Notes

The PF2270 Series Power Resistors must be attached to a suitable heatsink. The maximum internal resistor temperature is 155 °C.

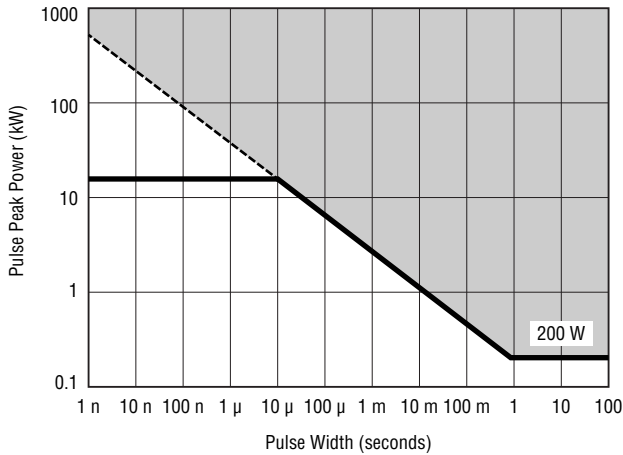
To specify an appropriate heatsink use the following formula:

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

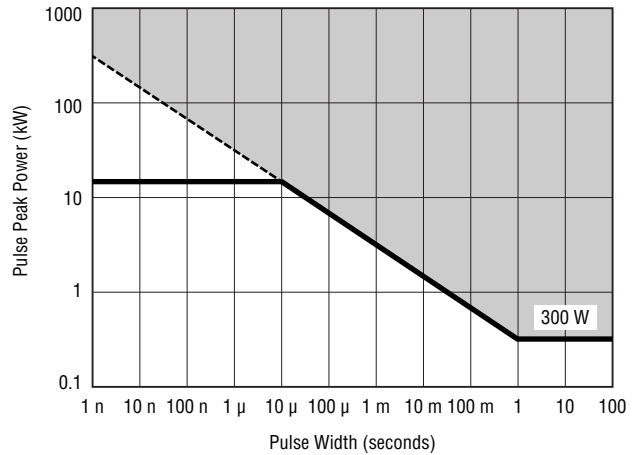
- Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (K/W)
- $R_{\theta R}$ = Thermal Resistance of Resistor (K/W)
- T_{MAX} = Maximum Temperature of Resistor
- T_A = Ambient Temperature of Heatsink (°C)
- P = Power Through Resistor (W)

Pulse Durability

PF2272 10 ohm 1 %



PF2274 10 ohm 1 %



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. Dotted line shows estimation.

How to Order

PF2272 - 10R J 1

Model _____
 PF2272
 PF2274

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 _____
 1 = standard version
 (other) = non-standard version

*Contact Bourns for ±1 % tolerances

Packaging Specifications

Tube 20 pcs. per tube

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