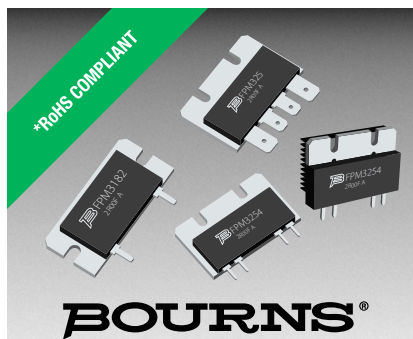




Features

- Formerly a Riedon™ product
- Resistances from 0.001 to 100 Ω
- Resistance tolerances to $\pm 0.1\%$
- Power rating to 50 watts
- TCR to ± 15 PPM/°C
- Very low inductance
- Isolated backplate
- RoHS compliant*

FPM Series – Riedon™ Precision Foil Power Resistors by Bourns

Specifications

Bourns Model	FPM3022 FPM3182	FPM3254 FPM3254H FPM4184
Resistance Range (Ω)	0.010 to 100	0.001 to 100
Power Rating (W) free air 70 °C for 3254H with heat sink	3 40	3 5 50
Thermal Resistance R_{thj-c} (K/W)	2.0	1.6
Tolerances from 0R001 from 0R005 from 0R01 from 0R02	0.5 % / 1 % / 2 % / 5 % 0.25 % / 0.5 % / 1 % / 2 % / 5 %	1 % / 2 % / 5 % 0.5 % / 1 % / 2 % / 5 % 0.1 % / 0.25 % / 0.5 % / 1 % / 2 % / 5 % 0.1 % / 0.25 % / 0.5 % / 1 % / 2 % / 5 %
Stability	0.1 % / 0.2 % / 0.5 % (depends on stress)	
Temperature Coefficient Standard Option 1	± 50 PPM/°C (+20 to +60 °C)	± 25 PPM/°C (+20 to +60 °C) ± 50 PPM/°C (+20 to +60 °C)
Max. Current (A)	50 - Contact K 150 - Contact A 200 - Contact F	
Voltage Proof (VDC)	500	
Thermal EMF	< 0.1 μ V/K	
Operating Temperature Range	-40 to +130 °C	
Resistor Material	CuNiMn-Foil	
Substrate	Anodized Aluminium	
Housing	Epoxy	
Connector Material	Cu Tinned	
Terminals	2	4
Max. Torque	1 Nm	



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

"Riedon" is a trademark of BE Services Company, Inc.

Additional Information

Click these links for more information:



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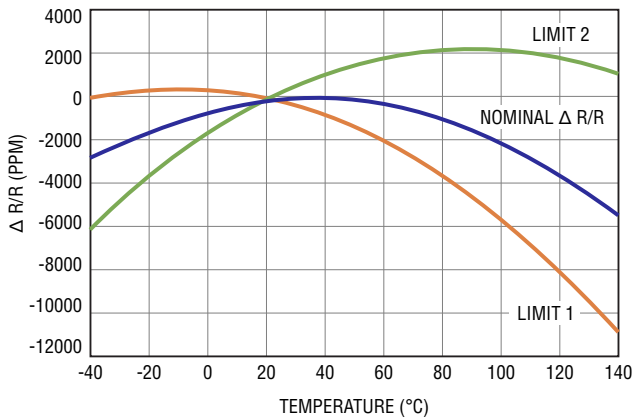


[SAMPLES](#)



[CONTACT](#)

Temperature Coefficient



How To Order

FPM 325 4 H - 10R0 F A Q

Model _____
 FPM302
 FPM318
 FPM325
 FPM418

Terminals _____
 2 = 2
 4 = 4

Special Code _____
 (blank) = Standard
 H = Advanced Heat Sink

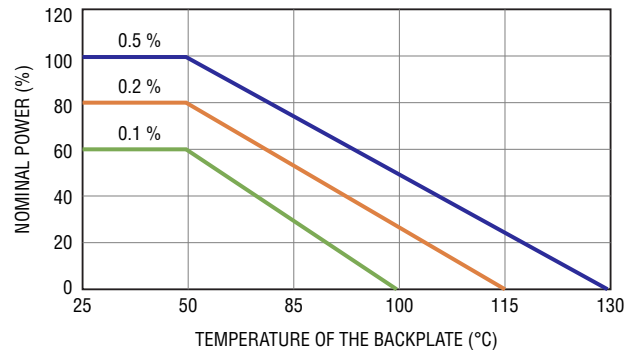
Resistance (Ω) _____
 4 digits: "R" represents decimal point (example: R010 = 0.010 Ω
 10R0 = 10 Ω, 100R = 100 Ω)
 3 digits: "L" presents mΩ for resistance
 (example: 3L20 = 0.0032 Ω, 6L80 = 0.0068 Ω)

Tolerance (%) _____
 B = ±0.1 F = ±1
 C = ±0.25 G = ±2
 D = ±0.5 J = ±5

Terminal Type _____
 K = Contact K (50 A max. current)
 A = Contact A (150 A max. current)
 F = Contact F (200 A max. current)

TCR (PPM/°C) _____
 R = ±50
 Q = ±25
 P = ±15

Power Derating Curve



Power Rating Notes

The FPM Series Resistors must be attached to a suitable heat sink. The maximum internal resistor temperature is 130 °C. To specify an appropriate heat sink use the following formula:

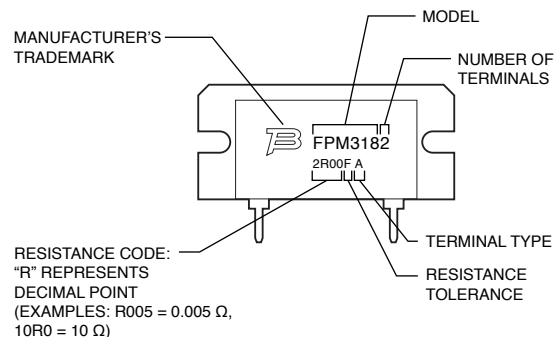
$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

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

Packaging Specifications

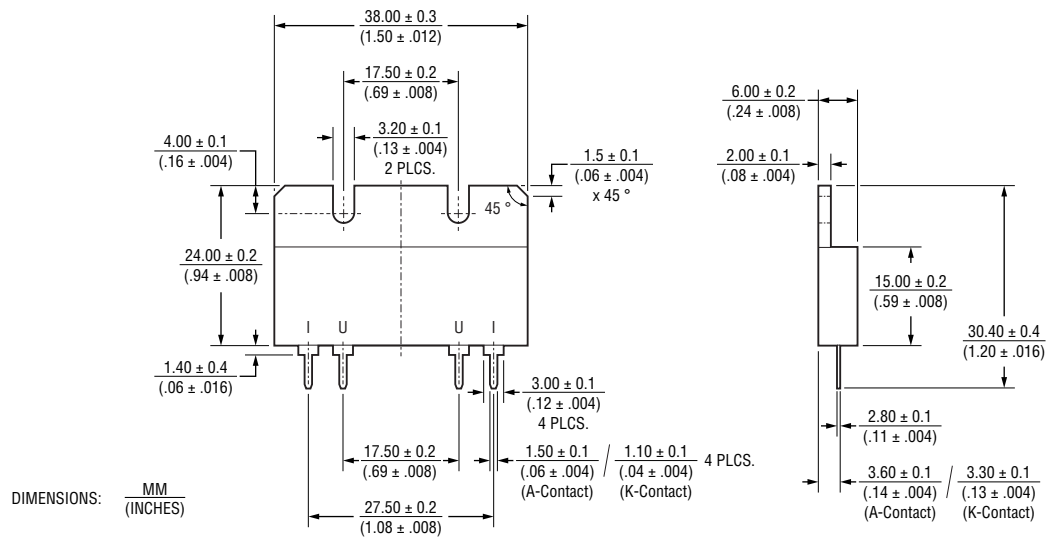
FPM3022, FPM3182, FPM3254, FPM4184
 Bulk 100 pcs. per box
 FPM3254H
 Bulk 50 pcs. per box

Typical Part Marking

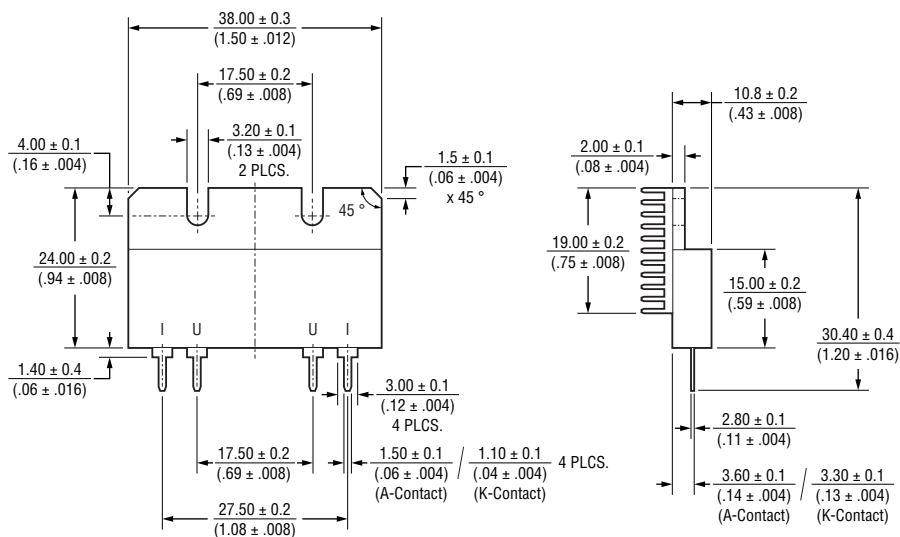


Product Dimensions

FPM3254



FPM3254H



*Apply current to "I" terminals and measure on "U" terminals

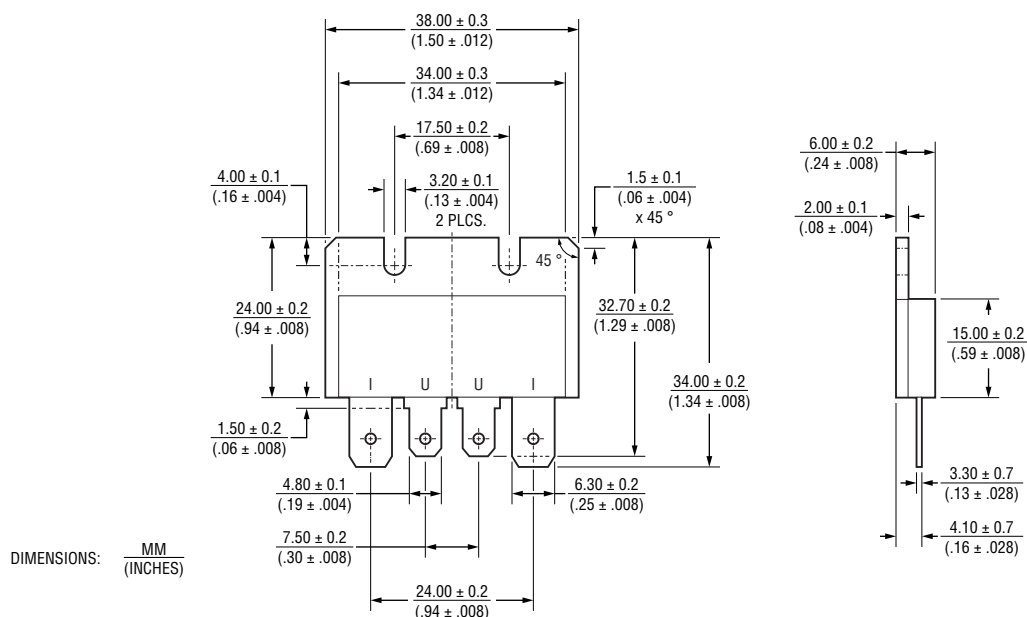
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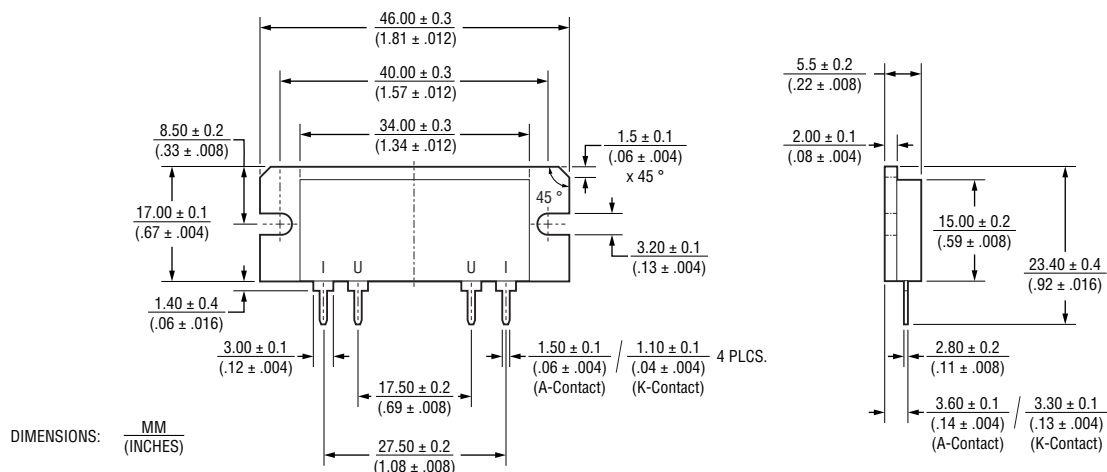
Product Dimensions (continued)

FPM3254 (Contact F)



*Apply current to “I” terminals and measure on “U” terminals

FPM4184



*Apply current to “I” terminals and measure on “U” terminals

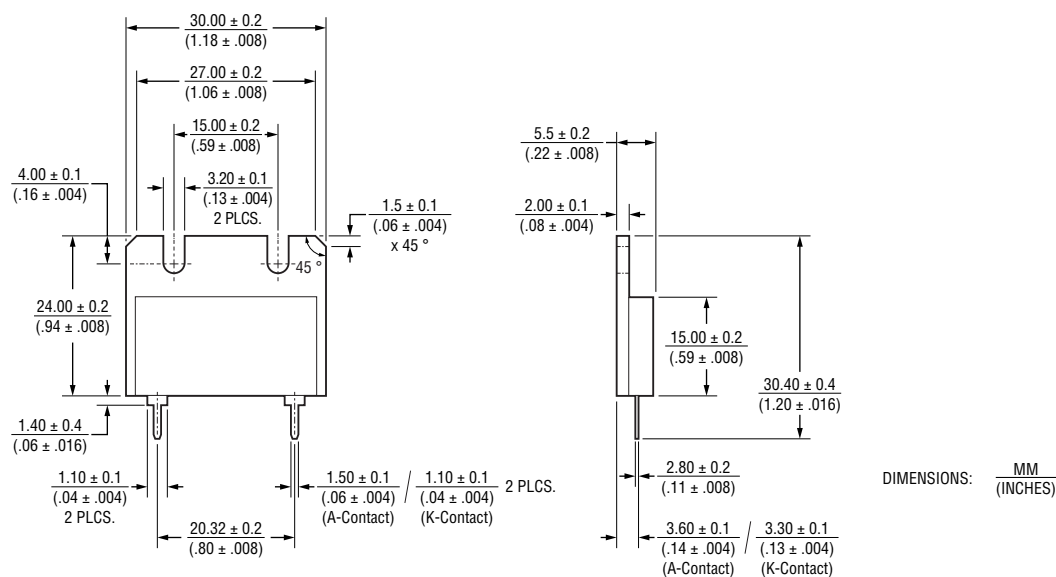
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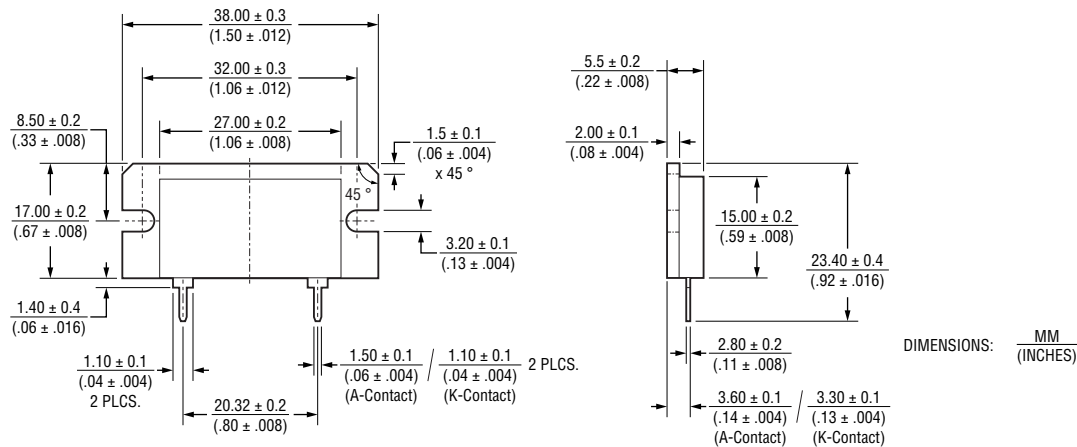
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Product Dimensions (continued)

FPM3252



FPM3182



BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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