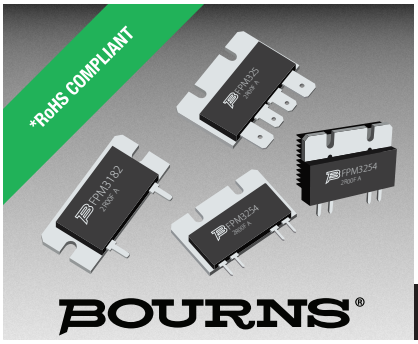


Features

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

Riedon™ FPM 3xx, 4xx 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 $R_{thj\text{-}c}$ (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 µV/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	

Additional Information

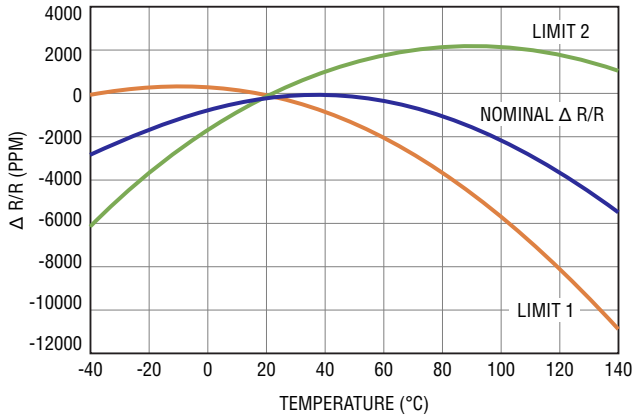
Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

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.

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

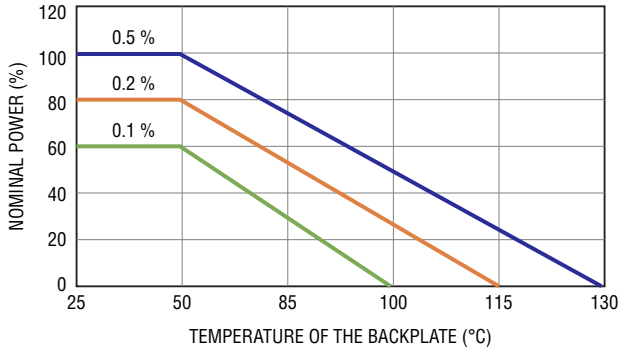
Resistance (Ω)
- 4 digits: "R" represents decimal point (example: R010 = 0.010 Ω 10R0 = 10 Ω, 100R = 100 Ω)
- 3 digits: "L" presents mΩ for resistance (example: 3L20 = 0.0032 Ω, 6L80 = 0.0068 Ω)

Tolerance (%)
- B = ±0.1
- C = ±0.25
- D = ±0.5
- F = ±1
- G = ±2
- 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:

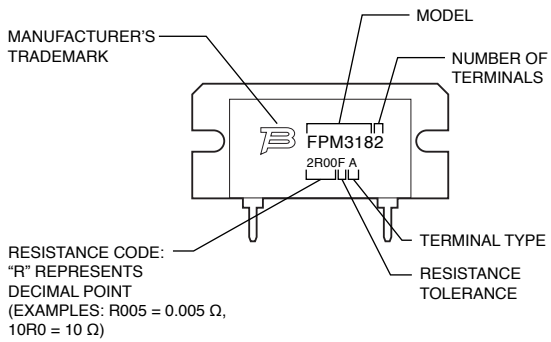
$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

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

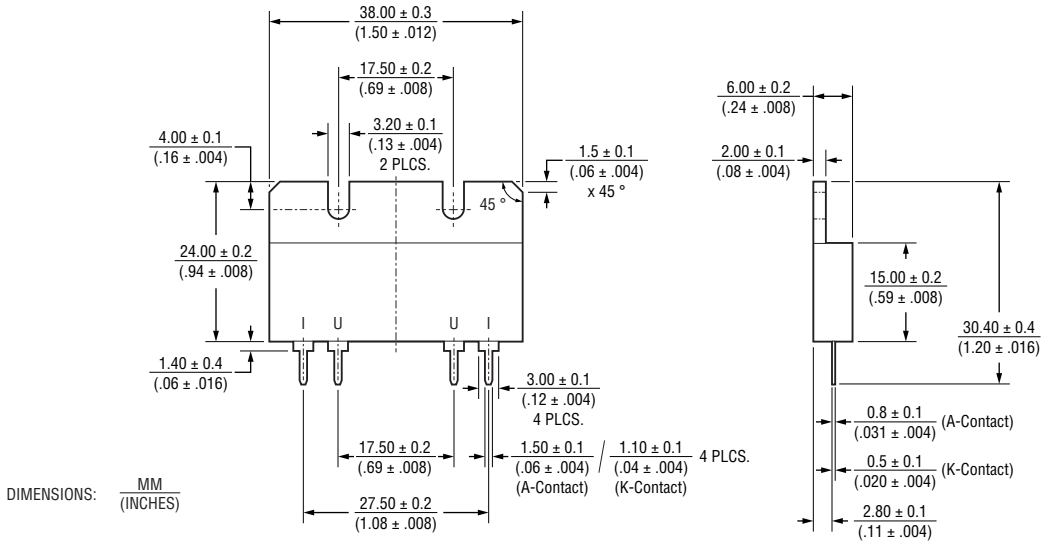
FPM3022, FPM3182, FPM3254, FPM4184
Bulk ..... 100 pcs. per box
FPM3254H
Bulk ..... 50 pcs. per box

Typical Part Marking

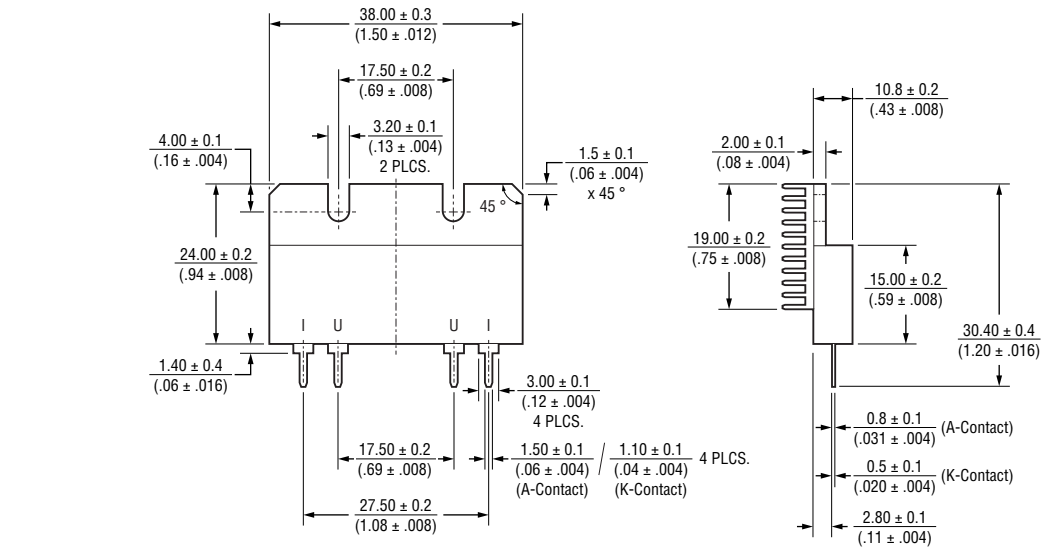


Product Dimensions

FPM3254



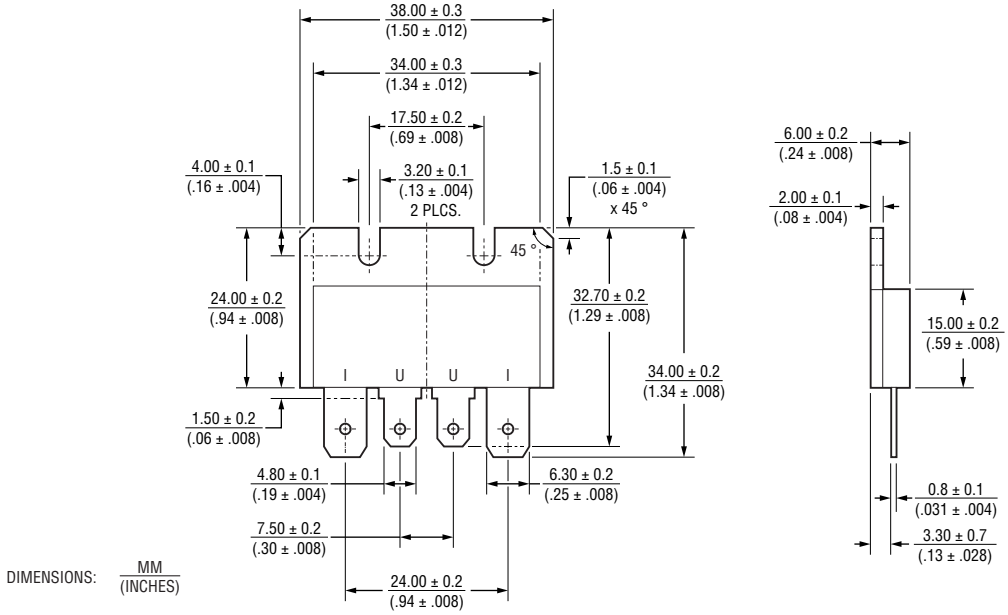
FPM3254H



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

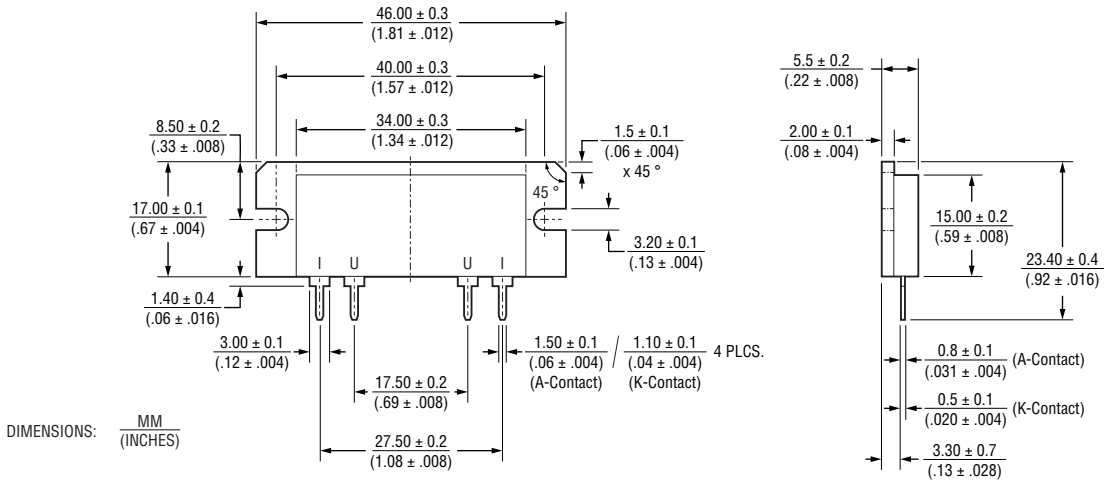
Product Dimensions (continued)

FPM3254 (Contact F)



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

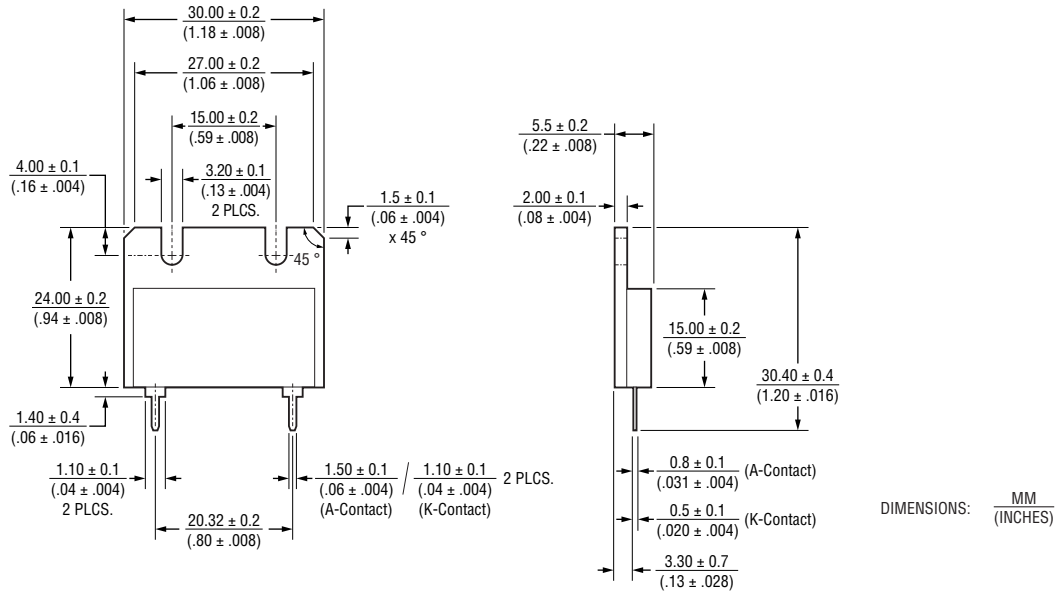
FPM4184



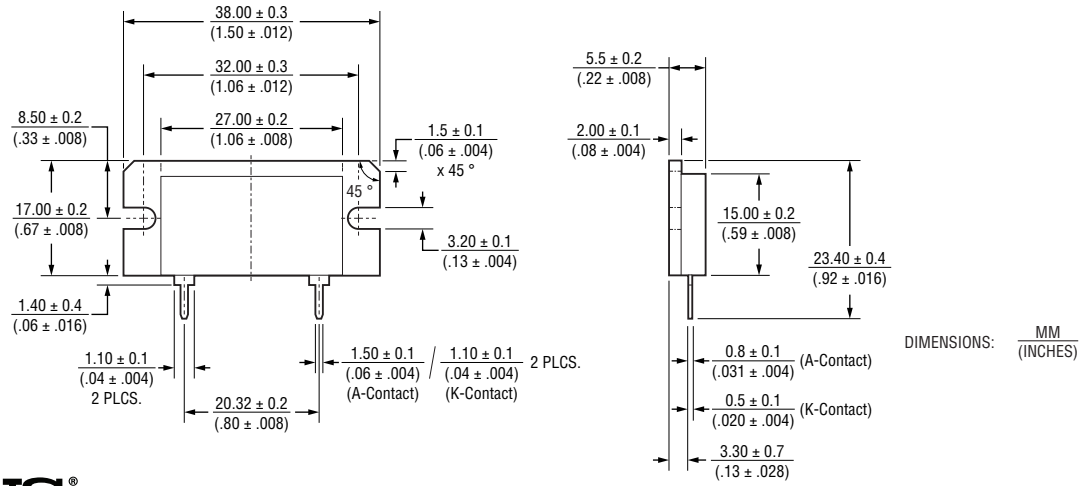
*Apply current to “I” terminals and measure on “U” terminals

Product Dimensions (continued)

FPM3252



FPM3182



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