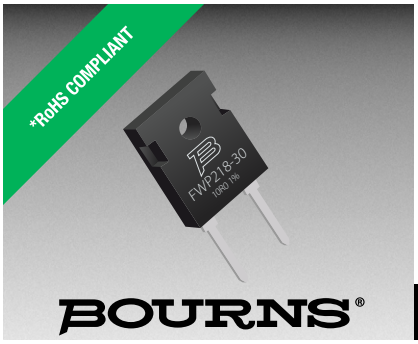

Features

- Formerly a Riedon™ product
- Resistances from 0.002 to 20 Ω
- Resistance tolerances to ±0.25 %
- TCR to ±30 PPM/°C
- Power rating to 30 watts
- TO-247 housing
- Non-inductive planar construction
- Load stability to 0.1 %
- RoHS compliant*

FWP218 – Riedon™ Precision Power Resistors by Bourns

Specifications

Bourns Model	FWP218	
Resistance Range (Ω)	0.002 to 20	21 to 50
Power Rating – Free Air 70 °C (W)	2	
Power Rating – with Heat Sink (W)	30	15
Tolerances from 0.002 Ω from 0.01 Ω from 0.02 Ω	1 % / 2 % / 5 % 0.5 % / 1 % / 2 % / 5 % 0.25 % (0.02 to 20) / 0.5 % / 1 % / 2 % / 5 %	
Thermal Resistance (°C/W)	2.5	
Stability (1000 h)	0.1 % / 0.2 % / 0.5 % (depends on stress)	
Temperature Coefficient R ≤ 0.01 Ω R ≤ 0.05 Ω R ≤ 0.5 Ω R > 0.5 Ω	±300 PPM/°C ±100 PPM/°C ±50 PPM/°C ±30 PPM/°C	±50 PPM/°C
Voltage Proof (VDC)	300	
Thermal EMF	< 0.1 µV/°C	
Operating Temperature Range	-40 to +130 °C	
Resistor Material	CuNiMn-Foil	
Substrate	Anodized Aluminium	
Housing	PPS	
Connector Material	Cu / Tinned	
Terminals	2	
Maximum Torque	1 Nm	

Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

How To Order

FWP 218 - 15 A - 10R0 F

Model

Size

Power Rating
- 15 = 15 W
- 30 = 30 W

Contact
- A
- B
- C

Resistance (Ω)
- "R" represents decimal point
  (example: R002 = 0.002 Ω, 20R0 = 20 Ω)
- "L" represents mΩ for resistance
  (example: 3L20 = 0.0032 Ω,
  6L80 = 0.0068 Ω

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

Packaging Information

Tube ..... 25 pcs.

BOURNS®

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

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.

Temperature Coefficient

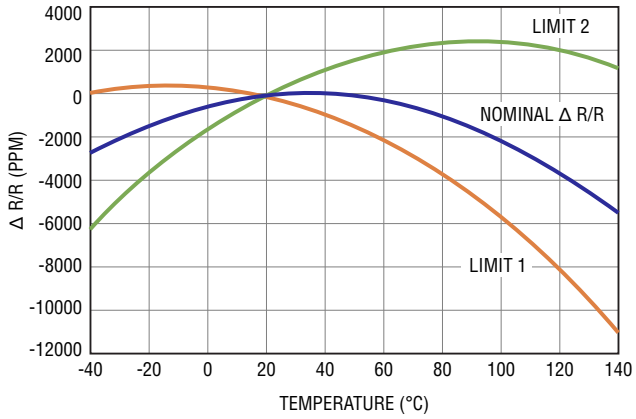
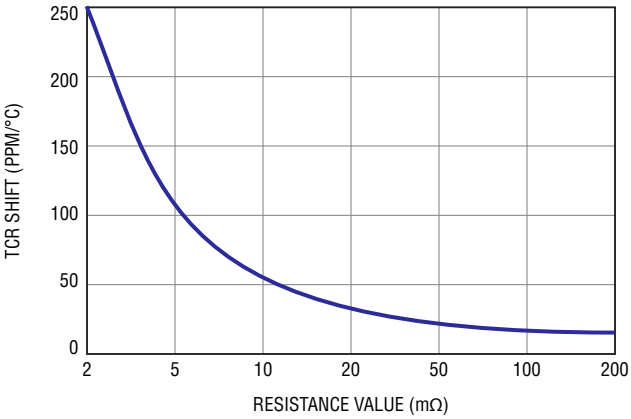
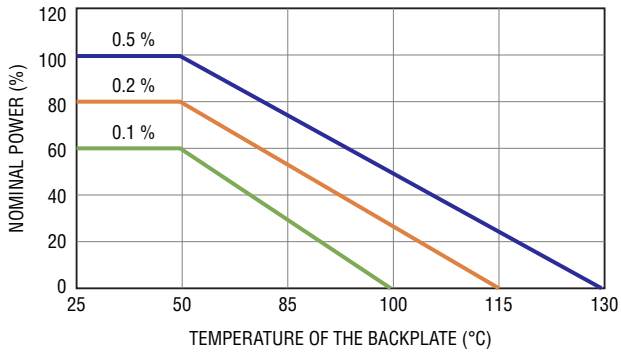


Table A



Power Derating Curve



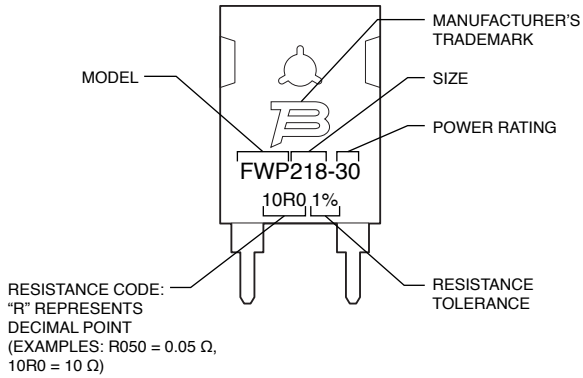
Power Rating Notes

The FWP 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:

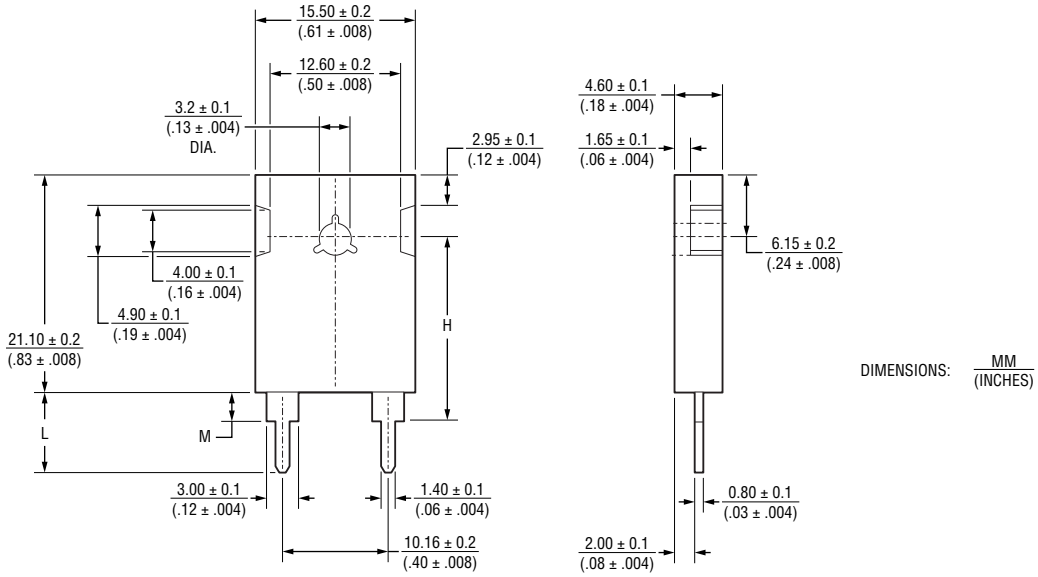
$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

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)

Typical Part Marking



Product Dimensions



Dimension	A Contact	B Contact	C Contact
H	17.65 ± 0.2 (.69 ± .008)	16.85 ± 0.2 (.66 ± .008)	17.75 ± 0.2 (.70 ± .008)
L	7.70 ± 0.2 (.30 ± .008)	5.00 ± 0.2 (.20 ± .008)	14.50 ± 0.2 (.57 ± .008)
M	2.70 ± 0.1 (.11 ± .004)	1.90 ± 0.1 (.07 ± .004)	2.80 ± 0.1 (.11 ± .004)

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