



### Features

- High current capability
- Low inductance (less than 10 nH)
- Radial leads
- Low ohmic



This series is obsolete and not recommended for new designs.

## PWR4412-2S Series Bare Metal Element Resistor

### General Information

The Bourns® PWR4412-2S Series is a through-hole resistor designed for current shunt and current sensing applications such as power supplies of different kinds, motor drives and many other applications. The resistor is quite rugged, consisting of a special metal alloy welded to tinned copper leads.

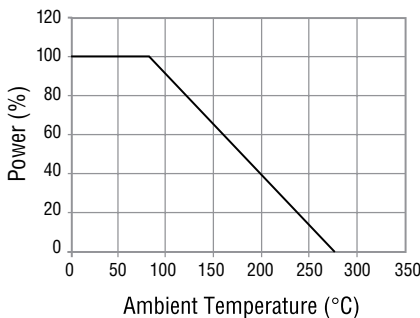
### Performance

$\Delta R$   
 Load Life (1000 Hours @ 70 °C) ... 2.5 %  
 Moisture No Load 100 Hours ..... 1 %  
 Temperature Cycling  
 (-40 °C to +125 °C, 1000 Cycles) ... 1 %

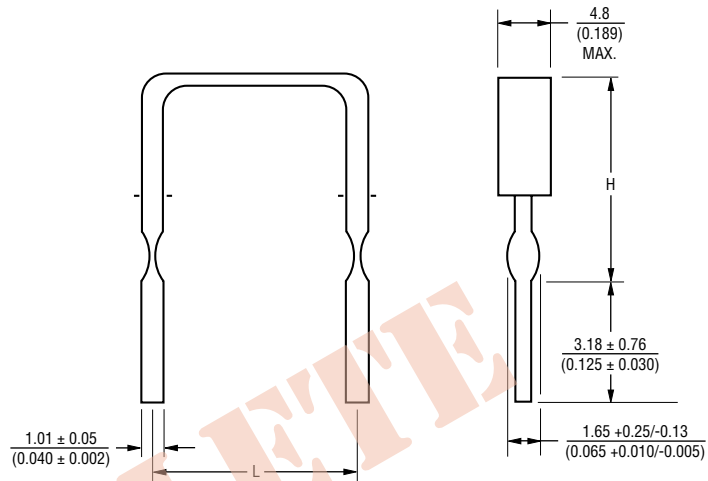
### Electrical Specifications

Power Rating @ 85 °C ..... 1, 3, 5 W  
 (see matrix)  
 Resistance Range ..... 0.005 to 0.1 ohms  
 Tolerances Available ..... 1 %, 5 %  
 Temperature Range ..... -55 ° to +270 °C  
 Maximum Working Voltage .....  $\sqrt{P \cdot R}$   
 Short Time Overload  
 ..... 5 x Rated Power for 5 seconds  
 Temperature Coefficient of Resistance  
 Wire .....  $\pm 20$  ppm/°C  
 Packaging ..... 250 pcs./bag

### Power Derating Curve



### Product Dimensions



Power Rating (W)	Version	Dimension L	Dimension H Max.	Resistance Values
1	B	$11.43 +1.02/-0.51$ (0.450 +0.04/-0.02)	$7.62$ (0.30)	R0050, R0100, R0200, R0250, R0300, R0400, R0500, R1000
3	C	$15.24 +1.02/-0.51$ (0.60 +0.04/-0.02)	$25.4$ (1.0)	R0050, R0100, R0150, R0200, R0250, R0300, R0400, R0500, R1000
5	D	$20.32 +1.02/-0.51$ (0.80 +0.04/-0.02)	$25.4$ (1.0)	R0050, R0100, R0150, R0200, R0250, R0300, R0500, R1000

Note: Terminal pins are tin plated copper.

DIMENSIONS:  $\frac{\text{MM}}{\text{INCHES}}$

### How to Order

Model \_\_\_\_\_  
 Version \_\_\_\_\_  
 Resistance Value for All Tolerances \_\_\_\_\_  
 "R" represents decimal point (examples: R0050 = 5 milliohms; R1000 = 100 milliohms)  
 Absolute Tolerance \_\_\_\_\_  
 J = 5 %  
 F = 1 %

**PWR4412-2S B R0300 J**



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

REV. 06/21

\*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.

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