



## Features

- Surface mount wirewound resistor
- High power
- Low temperature coefficient
- RoHS compliant\*
- Non-inductive versions available

## Applications

- Power supplies
- Motor drives
- Electricity metering

## PWR2615/PWR4525 Surface Mount Wirewound Power Resistors

### General Information

The PWR2615/PWR4525 Series are surface mount wirewound resistors offering 1 and 2 W power ratings as well as a wide resistance and operating temperature range.

### Electrical Characteristics

Parameter	PWR2615	PWR4525
Resistance Range 1 % Based on E24+E96 Series 5 % Based on E24 Series	0.01 to 5K ohms	0.01 to 15K ohms
Resistance Range (Non-Inductive Versions) Based on E24 Series	0.005 to 2K ohms	0.005 to 6K ohms (For resistances >2K ohms, please consult factory for availability)
Power Rating @ 70 °C	1 W	2 W
Maximum Working Voltage	58 V	173 V
Absolute Tolerance Values	0.5 % / 1 % / 5 %	
Temperature Coefficient (TCR) R>10 ohms 1 ohm≤R≤10 ohms 0.1 ohm ≤R<1 ohm R<0.1 ohm	±20 PPM/°C ±50 PPM/°C ±90 PPM/°C ±150 PPM/°C	
Operating Temperature	-55 to +275 °C	
Insulation Resistance	>1000 megohms	
Dielectric Strength	1000 VAC	

### Environmental Characteristics

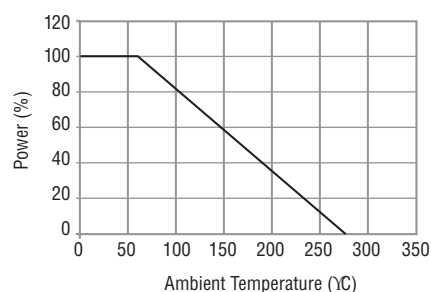
Tests per MIL-STD-202	ΔR Max.
Short Time Overload	0.5 % ±0.05 Ω
Load Life	1.0 % ±0.05 Ω
Moisture Resistance	1.0 % ±0.05 Ω
Thermal Shock	0.5 % ±0.05 Ω
Resistance to Solder Heat	0.25 % ±0.05 Ω
Shock	0.5 % ±0.05 Ω
Vibration	0.5 % ±0.05 Ω

Moisture Sensitivity Level..... 1  
ESD Classification (HBM)..... N/A

### Physical Characteristics

Flammability ..... Conforms to UL94V-0  
Lead Frame Material ..... Copper, tin-plated  
Body Material ..... Epoxy resin

### Characteristic Curve



\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

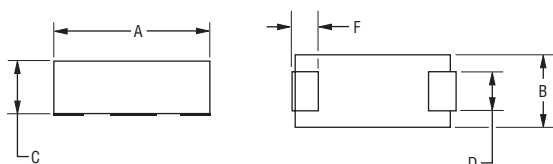
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# PWR2615/PWR4525 Surface Mount Wirewound Power Resistors

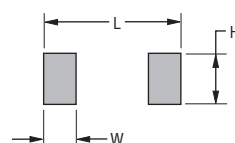
**BOURNS®**

## Product Dimensions



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

## Recommended Pad Layout

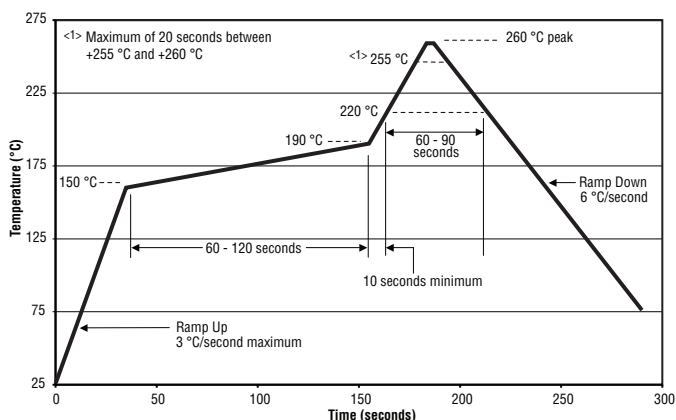


Model	A $\frac{\pm 0.4}{(\pm 0.015)}$	B $\frac{\pm 0.4}{(\pm 0.015)}$	C $\frac{\pm 0.4}{(\pm 0.015)}$	D $\frac{\pm 0.4}{(\pm 0.015)}$	F $\frac{\pm 0.4}{(\pm 0.015)}$	Lead Thickness $\frac{\pm 0.05}{(\pm 0.002)}$	Height $\frac{\pm 0.13}{(\pm 0.005)}$	W $\frac{\pm 0.4}{(\pm 0.015)}$	H $\frac{\pm 0.4}{(\pm 0.015)}$	L $\frac{\pm 0.4}{(\pm 0.015)}$
PWR2615	$\frac{6.6}{(0.260)}$	$\frac{3.9}{(0.155)}$	$\frac{3.2}{(0.125)}$	$\frac{1.8}{(0.070)}$	$\frac{1.8}{(0.070)}$	$\frac{0.15}{(0.006)}$	$\frac{0.13}{(0.005)}$	$\frac{2.4}{(0.096)}$	$\frac{2.8}{(0.112)}$	$\frac{8.6}{(0.337)}$
PWR4525	$\frac{11.4}{(0.450)}$	$\frac{6.4}{(0.250)}$	$\frac{4.6}{(0.180)}$	$\frac{3.0}{(0.120)}$	$\frac{2.5}{(0.100)}$	$\frac{0.15}{(0.006)}$	$\frac{0.13}{(0.005)}$	$\frac{3.9}{(0.155)}$	$\frac{5.8}{(0.230)}$	$\frac{13.7}{(0.540)}$


## Packaging Specifications

Model	Tape	Pieces per Reel	Bulk Pkg. Quantity
PWR2615	16 mm / Embossed Plastic	2000	250 pcs.
PWR4525	24 mm / Embossed Plastic	1000	250 pcs.

## Soldering Profile



## Typical Part Marking

MANUFACTURER'S  
TRADEMARK (PWR4525)  10R0 — RESISTANCE  
CODE  
YYWW — DATE CODE

## How to Order

**PWR4525 W 7R50 J E**

Model \_\_\_\_\_  
 • PWR2615  
 • PWR4525

Type \_\_\_\_\_  
 W = Wirewound Inductive  
 N = Wirewound Non-Inductive

Resistor Value for all Tolerances \_\_\_\_\_  
 <100 Ω .... "R" represents decimal point (examples: 7R50 = 7.5 Ω; R050 = 0.050 Ω)  
 ≥100 Ω ..... First three digits are significant, fourth digit represents number of zeros to follow (examples: 2000 = 200 Ω; 2002 = 20K Ω)

Absolute Tolerance\*  
 D = ±0.5 % F = ±1 % J = ±5 %

Packaging \_\_\_\_\_  
 E = Tape & Reel \_\_\_\_\_ = Bulk

\*Tolerances as low as 0.01 % available on resistance values greater than 100 ohms. Consult factory.

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