



**THE DATASHEET OF
PWR4525WR220FE**





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.

Additional Information

Click these links for more information:



Electrical Characteristics

Parameter	PWR2615	PWR4525
Resistance Range 1 % Based on E24+E96 Series 5 % Based on E24 Series	0.1 to 3K ohms	0.1 to 10K ohms
Resistance Range (Non-Inductive Versions) Based on E24 Series	0.05 to 400 ohms	0.05 to 1.5K ohms <i>(For resistances >1.5K ohms, please consult factory for availability)</i>
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	

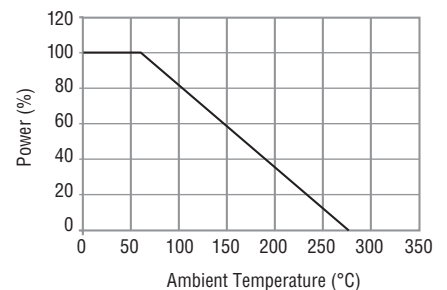
Physical Characteristics

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

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

Characteristic Curve



WARNING Cancer and Reproductive Harm
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.

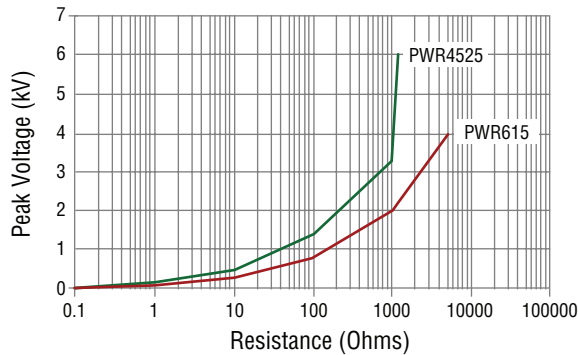
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Moisture Sensitivity Level..... 1
ESD Classification (HBM)N/A

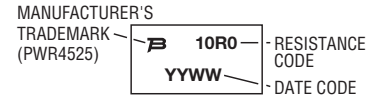
PWR2615/PWR4525 Surface Mount Wirewound Power Resistors



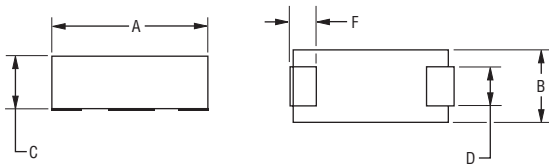
Surge Performance (IEC 61000-4-5 1.2 μs / 50 μs)



Typical Part Marking

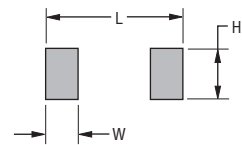


Product Dimensions



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 $\frac{\pm 0.05}{(\pm 0.002)}$	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	$\frac{6.6}{(0.260)}$	$\frac{3.9}{(0.155)}$	$\frac{3.2}{(0.125)}$	$\frac{1.8}{(0.070)}$	$\frac{1.8}{(0.070)}$	$\frac{0.15}{(0.006)}$	$\frac{2.4 \text{ to } 2.7}{(0.094 \text{ to } 0.096)}$	$\frac{2.8}{(0.112)}$	$\frac{7.6 \text{ to } 8.6}{(0.299 \text{ to } 0.337)}$
PWR4525	$\frac{11.4}{(0.450)}$	$\frac{6.4}{(0.250)}$	$\frac{4.6}{(0.180)}$	$\frac{3.0}{(0.120)}$	$\frac{2.5}{(0.100)}$	$\frac{0.15}{(0.006)}$	$\frac{3.9}{(0.155)}$	$\frac{5.8}{(0.230)}$	$\frac{12.8 \text{ to } 13.7}{(0.504 \text{ to } 0.539)}$

Packaging Specifications

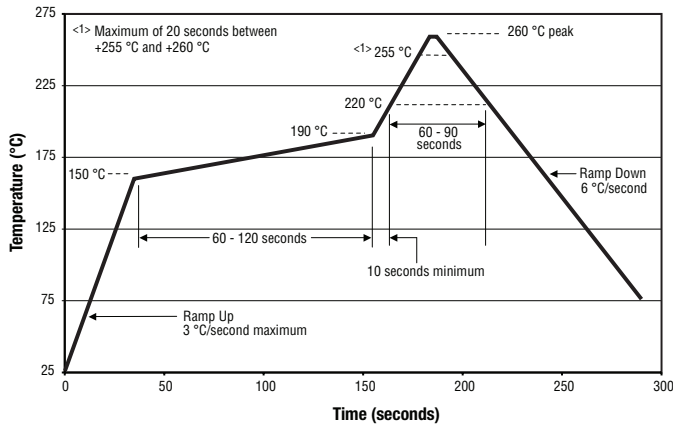
Model	Tape	Pieces per Reel	Bulk Pkg. Quantity
PWR2615	16 mm / Embossed Plastic	2000	250 pcs.
PWR4525	24 mm / Embossed Plastic	1000	250 pcs.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Soldering Profile



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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