



## Features

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

## Applications

- Power supplies
- Motor drives
- Electricity metering

### PWR1913/PWR2615/PWR4525/PWR6327 Surface Mount Wirewound Power Resistors

#### General Information

The PWR1913/PWR2615/PWR4525/PWR6327 Series are surface mount wirewound resistors offering 0.5, 1, 2 and 3 W power ratings as well as a wide resistance and operating temperature range.

#### Electrical Characteristics

| Parameter  | PWR1913                                 | PWR2615           | PWR4525           | PWR6327            |
|--|---|-------------------|-------------------|--------------------|
| Resistance Range   | 0.01 to 400 ohms                        | 0.01 to 3K ohms   | 0.01 to 15K ohms  | 0.01 to 25K ohms   |
| Resistance Range (Non-Inductive Version)                                 | Not Available                           | 0.01 to 1.5K ohms | 0.01 to 7.5K ohms | 0.01 to 12.5K ohms |
| Power Rating @ 70 °C   | 0.5 W                                   | 1 W               | 2 W               | 3 W                |
| Maximum Working Voltage  | 33 V                                    | 58 V              | 173 V             | 273 V              |
| Absolute Tolerance Values  | 1 % / 5 %                               |                   |                   |                    |
| Temperature Coefficient (TCR)<br>R>10 ohms<br>1 ohm≤R≤10 ohms<br>R<1 ohm | ±20 PPM/°C<br>±50 PPM/°C<br>±150 PPM/°C |                   |                   |                    |
| Operating Temperature  | -55 to +275 °C                          |                   |                   |                    |
| Insulation Resistance  | >1000 megohms                           |                   |                   |                    |
| Dielectric Strength  | 1000 VAC                                |                   |                   |                    |

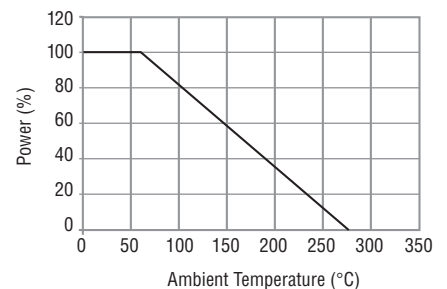
#### Environmental Characteristics

| 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  |

#### Physical Characteristics

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

#### Characteristic Curve



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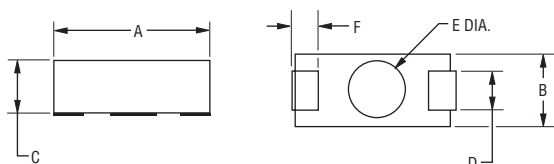
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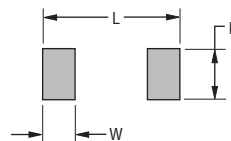
\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.  
Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.

**Product Dimensions**



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

**Recommended Pad Layout**

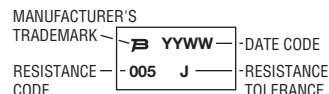


| Model   | A<br>$\pm 0.4$<br>( $\pm 0.015$ ) | B<br>$\pm 0.4$<br>( $\pm 0.015$ ) | C<br>$\pm 0.4$<br>( $\pm 0.015$ ) | D<br>$\pm 0.4$<br>( $\pm 0.015$ ) | F<br>$\pm 0.4$<br>( $\pm 0.015$ ) | Lead Thickness<br>$\pm 0.05$<br>( $\pm 0.002$ ) | E<br>$\pm 0.4$<br>( $\pm 0.015$ ) | Height<br>$\pm 0.13$<br>( $\pm 0.005$ ) | W<br>$\pm 0.4$<br>( $\pm 0.015$ ) | H<br>$\pm 0.4$<br>( $\pm 0.015$ ) | L<br>$\pm 0.4$<br>( $\pm 0.015$ ) |
|---------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|-----------------------------------|---|-----------------------------------|-----------------------------------|-----------------------------------|
| PWR1913 | $\frac{4.8}{(0.190)}$             | $\frac{3.3}{(0.130)}$             | $\frac{2.8}{(0.110)}$             | $\frac{1.5}{(0.060)}$             | $\frac{1.0}{(0.040)}$             | $\frac{0.15}{(0.006)}$                          | $\frac{2.5}{(0.100)}$             | $\frac{0.13}{(0.005)}$                  | $\frac{1.6}{(0.062)}$             | $\frac{2.5}{(0.100)}$             | $\frac{6.4}{(0.250)}$             |
| PWR2615 | $\frac{6.6}{(0.260)}$             | $\frac{3.9}{(0.155)}$             | $\frac{3.2}{(0.125)}$             | $\frac{1.8}{(0.070)}$             | $\frac{1.8}{(0.070)}$             | $\frac{0.15}{(0.006)}$                          | $\frac{3.0}{(0.120)}$             | $\frac{0.13}{(0.005)}$                  | $\frac{2.4}{(0.096)}$             | $\frac{2.8}{(0.112)}$             | $\frac{8.6}{(0.337)}$             |
| PWR4525 | $\frac{11.4}{(0.450)}$            | $\frac{6.4}{(0.250)}$             | $\frac{4.6}{(0.180)}$             | $\frac{3.0}{(0.120)}$             | $\frac{2.5}{(0.100)}$             | $\frac{0.15}{(0.006)}$                          | $\frac{4.8}{(0.190)}$             | $\frac{0.13}{(0.005)}$                  | $\frac{3.9}{(0.155)}$             | $\frac{5.8}{(0.230)}$             | $\frac{13.7}{(0.540)}$            |
| PWR6327 | $\frac{15.9}{(0.625)}$            | $\frac{6.9}{(0.270)}$             | $\frac{6.4}{(0.250)}$             | $\frac{3.0}{(0.120)}$             | $\frac{3.4}{(0.135)}$             | $\frac{0.15}{(0.006)}$                          | $\frac{2.8}{(0.110)}$             | $\frac{0.13}{(0.005)}$                  | $\frac{5.1}{(0.200)}$             | $\frac{3.8}{(0.150)}$             | $\frac{17.8}{(0.700)}$            |

**Packaging Specifications**

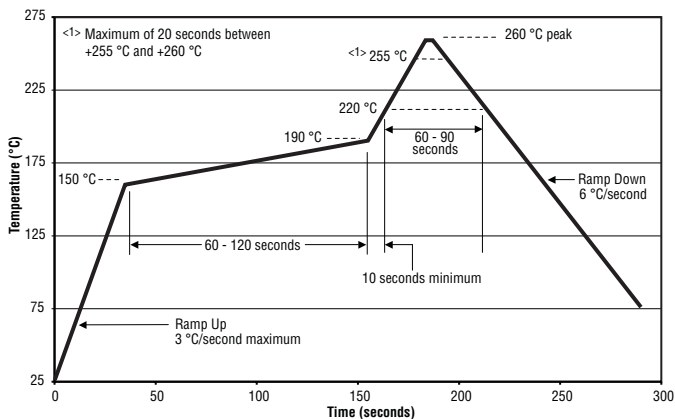
| Model   | Tape                     | Pieces per Reel | Bulk Pkg. Quantity |
|---------|--------------------------|-----------------|--------------------|
| PWR1913 | 12 mm / Embossed Plastic | 3000            | 250 pcs.           |
| PWR2615 | 16 mm / Embossed Plastic | 2000            | 250 pcs.           |
| PWR4525 | 24 mm / Embossed Plastic | 1000            | 250 pcs.           |
| PWR6327 | 28 mm / Embossed Plastic | 700             | 250 pcs.           |

**Typical Part Marking**



Note: PWR1913 will contain only the Resistance Code on the top line and the Resistance Tolerance on the bottom line. PWR2615 will not contain the Manufacturer's Trademark.

**Soldering Profile**



**How to Order**

**PWR4525 W 7R50 J E**

Model \_\_\_\_\_  
PWR1913 PWR4525  
PWR2615 PWR6327

Type \_\_\_\_\_  
W = Wirewound Inductive  
N = Wirewound Non-Inductive  
(Not available for PWR1913)

Resistor Value for all Tolerances \_\_\_\_\_  
<math>\langle \! \rangle 100 \text{ ohms}</math> .... "R" represents decimal point (examples: 7R50 = 7.5  $\Omega$ ; R050 = 0.050  $\Omega$ )  
 $\geq 100 \text{ ohms}$  .... First three digits are significant, fourth digit represents number of zeros to follow (examples: 2000 = 200  $\Omega$ ; 2002 = 20K  $\Omega$ )

Absolute Tolerance\* \_\_\_\_\_  
J =  $\pm 5 \%$  F =  $\pm 1 \%$

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

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