

Features

- Fuses safely at 220/240 mains voltage
- Resistance values as high as 2.2K ohms
- Flame-proof silicone coating
- Low TCR
- RoHS compliant*
- Agency approval: 

Applications

- White goods
- Inverters
- Lighting
- Metering

PWR4522 Fusible Power Resistors

General Introduction

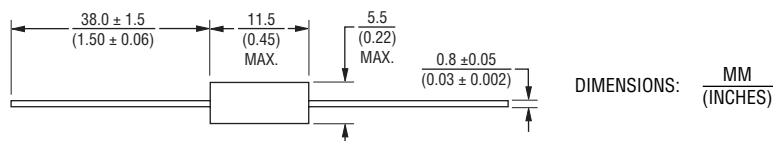
The PWR4522A Series of axial leaded wirewound resistors in a flame-proof silicone coating are designed to fuse under abnormal conditions such as sudden surges in voltage or circuit malfunctions. The resistor will fuse instantly upon the application of 220/240 mains voltage without flame or incandescent particles.

Electrical Characteristics

Characteristic	Model PWR4522
Power	3 W
Resistance Range	8.2 ohms to 2.2K ohms (E12)
Tolerance	5 %
Temperature Coefficient	±90 PPM/°C
Operating Temperature Range	-55 °C to +350 °C
Maximum Voltage	$\sqrt{P \cdot R}$
Fusing Point	16X Rated Power
Fusing Time	45 Seconds Max.**

** The resistor will fuse safely if 220/240 mains voltage is applied. The time to fuse depends on the resistance value.

Product Dimensions



For Standard Values Used in Capacitors, Inductors, and Resistors, [click here](#).

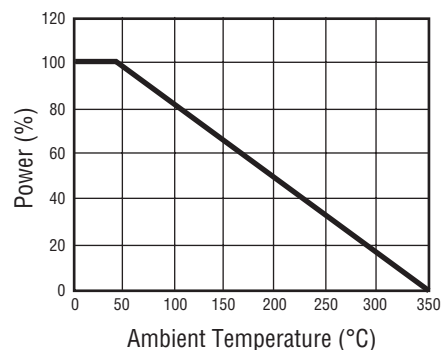
Agency Approval

Description	
UL	File Number: E349323 UL Approved at 120 Vac

Materials

Resistor Wirewound around a ceramic core
Lead Frame Tinned copper
Housing Flame-proof thermocoat

Power Derating Curve



How to Order

Model _____ PWR = Power Resistor

Package _____ 4522 = Size (0.45 x 0.22 inches)

Pin Style _____ A = Axial Through-hole

Version _____ S = Safety Version (Fuses without flames or explosion when 220/240 mains voltage is applied)

Resistance Value _____ "R" represents decimal point
R < 100 ohms First three digits are significant, fourth digit represents number of zeros to follow
R ≥ 100 ohms

Resistance Tolerance _____ J = ±5 %

Packaging _____ A = Ammo Pack (1500 pcs. per pack)

PWR 4522 A S 8R20 J A

*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.
Customers should verify actual device performance in their specific applications.

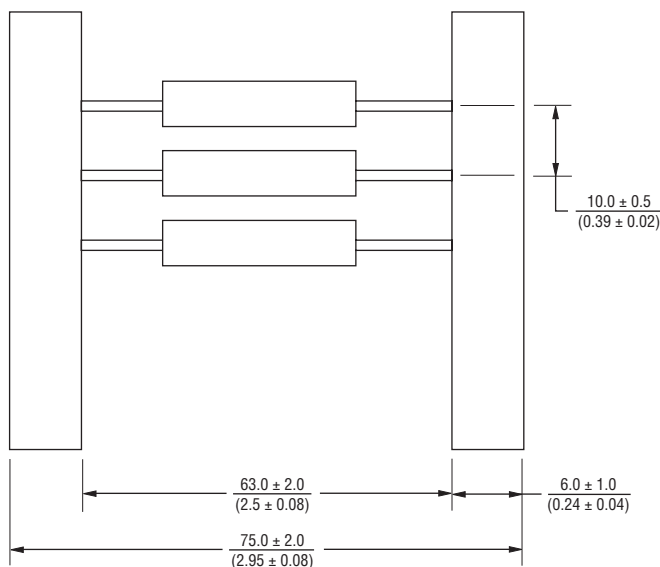
PWR4522 Fusible Power Resistors

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Environmental Characteristics

Test	Description	Specification
Dielectric Withstanding Voltage	Based on limiting voltage x 2 for 60 seconds	$\Delta R \pm (1 \% + 0.05 \Omega)$ - No flashover, mechanical damage, arcing or insulation breakdown
Thermal Shock	-55 °C +0 °C/-3 °C to room temperature to +200 °C +3 °C/-0 °C, 5 cycles, with minimum 15 minutes at each cycle	$\pm(2.0 \% + 0.05 \Omega)$
Short Time Overload	Five times rated power for 5 seconds	$\pm(2.0 \% + 0.05 \Omega)$
Solderability	As per IEC 60068 – 2 -20	Must meet all requirements
Resistance to Solder Heat	Immersion in solder +260 °C to +270 °C for 10 ± 0.5 seconds	$\pm(0.5 \% + 0.05 \Omega)$
Dielectric Strength	Test voltage >2X maximum voltage for greater than 1 minute	$\pm(2.0 \% + 0.05 \Omega)$
Insulation Resistance	Test voltage greater than 500 V rms for one minute	>1000 G Ω
Humidity	+40 °C at 93 % RH for 1000 hours no load +5 °C	$\pm(5.0 \% + 0.05 \Omega)$
Load Life	Rated continuous voltage for 1000 hours 1 hour on and 0.5 hours off at a test temperature of +70 °C ± 2 °C	$\pm(5.0 \% + 0.05 \Omega)$

Packaging Specifications



Ammo Pack Box	Master Box	Quantity	
		Ammo Pack	Master Box
$275 \times 100 \times 110$ (10.8 x 3.94 x 4.33)	$450 \times 290 \times 330$ (17.72 x 11.42 x 12.99)	1500	12000

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

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