Data Sheet No.: E16024

Version: V0

Date: 2022/6/30

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PZWR

Precision Power Wirewound Resistor

Rated Power	**5W**
Tolerance	**±0.1%**
TCR	**±10, ±20ppm/℃**
Resistance	**0.01Ω-2.2KΩ**

Applications

Low noise circuit

Current sense

Precision instrumentation

Laboratory equipment

Power measurement

Better Solution for Sustainable High End Manufacturing

Wide Operating Temperature Range

Precision Wirewound Resistor

Introduction

Precision and Stability

Achieves resistance tolerances as tight as ±0.1% and low temperature coefficients (TCR) down to ±10 ppm/°C, exhibits long-term stability of ≤500 ppm/year under normal conditions

Robust Pulse and Overload Handling

Fully welded construction optimized wire geometry and mass distribution eliminates weak points, enabling the resistor to withstand high-energy impulses and surge currents without degradation ensure reliability in harsh environments.

High-Purity Materials and Advanced Manufacturing

1.High-purity ceramic cores offer excellent thermal management, reducing hotspot.

2.Precision winding techniques, making these resistors suitable for high-precision applications .

3.Conduct constant-temperature oil bath testing to eliminate inconsistencies and ensure uniform performance .

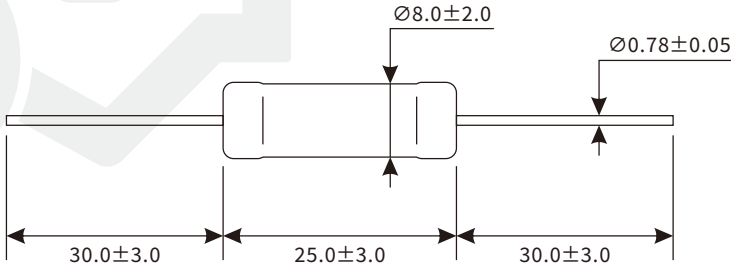
Electrical Parameters

Size	Rated Power (+70°C)	Operating Temperature	E-Series Value	TCR ppm/K	Resistance Ω	Tolerance* %
PZWR0005	5W	-55°C~+155°C	E24	±10, ±20	0.01≤R≤2.2K	±0.1, ±0.5, ±1.0

*. 0.1% is available for specific resistance range.

Dimensions & Packaging

Unit:mm



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Part Number Information

Example: PZWR0005B10R0N9 (PZWR 5W ±0.1% 10Ω ±10ppm/°C Standard)

P	Z	W	R	0	0	0	5	B	1	0	R	0	N	9

Series	Power	Tolerance	Resistance	TCR	Code
PZWR	0005=5W	B=±0.1% D=±0.5% F=±1.0%	R010=0.01Ω R100=0.1Ω 1R00=1Ω 1K00=1KΩ 2K20=2.2KΩ	N=±10ppm/°C A=±20ppm/°C	9=standard N=Non-inductance X=Other options

For more options of resistance, tolerance and TCR, please contact us.

Performance

Test	Test Method	Standards	Test Limits
Moisture Resistance	40±2°C. 90~95%RH for 500hours	GB/T5729 4.24	ΔR≤±(2%R+0.05Ω) No mechanical damage. Clear marking
Load Life	100% rated power. Load 90 min/ON 30 min/OFF. 500hours	GB/T5729 4.25.2	ΔR≤±(2%R±0.05Ω) No mechanical damage. Clear marking
Short Time Overload	5 times rated power, 5s	GB/T5729 4.14	ΔR≤±(1%R+0.05Ω) No mechanical damage
Vibration	10~55Hz. 1min/cycle. 1.5mm wide in the three directions. Keeping 2 hours in each direction	GB/T5729 4.22	ΔR≤±(1%R+0.05Ω) No mechanical damage
Resistance to Solder Heat	350°C for 10s (Tin Plating)	GB/T5729 4.18	ΔR≤±(1%R+0.05Ω) No mechanical damage
Solderability	275°C for 5s (Tin Plating)	GB/T5729 4.17	90% coverage min.
Terminal Strength	Axial force 20N for 10s	GB/T5729 4.16	Lead wire no breaking or no loosening of termination
Body Strength	Vertical force 40N for 30s	GB/T5729 4.15	No mechanical damage

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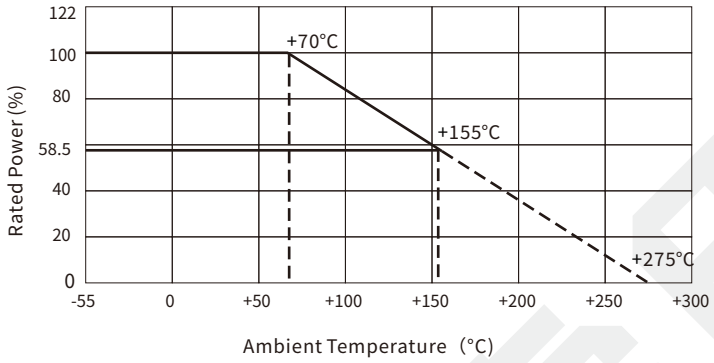
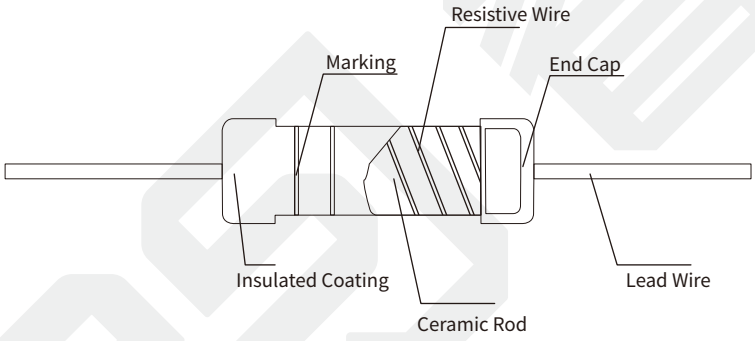
Derating Curve



Construction



Revision

Version	Revised Content	Date	Approver
V0	Initial Issue	2022/6/30	CFD

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