

DataSheet No:E05005

Version:V1

Date:2024/06/18



# EWWR

## Axial Lead Wirewound Resistors

<b>Resistance</b>	<b>0.1Ω~8.2KΩ</b>
<b>Tolerance</b>	<b>±5%</b>
<b>TCR</b>	<b>±250ppm/°C</b>
<b>Rated Power</b>	<b>1W~10W</b>

### Applications

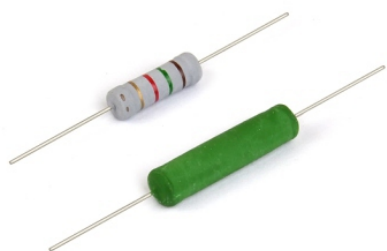
Precision Instrumentation  
Semiconductor Testing Equipment  
Medical Equipment  
Capacitor Charging & Discharging

**Better Solution for Sustainable  
High End Manufacturing**



### Small Size and High Power

### High Stability. Non-Flammable Paint Encapsulation



#### Introduction

EWWR series is an economical axial lead wirewound resistor. The small size of EWWR make circuit design more flexible. Optional power of 1W-10W, resistance range of 0.1 Ω-8.2KΩ, tightest tolerance of ±5% and insulation voltage of 700V. EWWR series is able to operate at relatively high temperatures without damage, with maximum operating temperature range of 155°C. The good heat resistance makes EWWR operate stably within nominal parameters, showing excellent performance in high-temperature environments or applications requiring long-term loads, and high product reliability.

If the standard specifications cannot meet your needs, please contact our sales for consultation. Resi is committed to providing the best precision resistor solutions to meet the needs of customers in instrumentation, semiconductor testing, medical instruments, capacitor charging and discharging, and other fields.



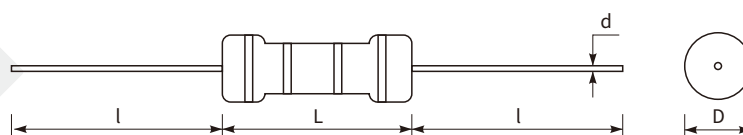
#### Electrical Parameters

Series	Rated Power	Resistance	Insulation Voltage	TCR	Tolerance
EWWR0001	1W	$0.1\Omega \leq R \leq 510\Omega$	700V	±250ppm/°C	±5%
EWWR0003	3W	$0.1\Omega \leq R \leq 510\Omega$	700V	±250ppm/°C	±5%
EWWR0006	6W	$0.1\Omega \leq R < 5.6K\Omega$	700V	±250ppm/°C	±5%
EWWR0008	8W	$1\Omega \leq R \leq 8.2K\Omega$	700V	±250ppm/°C	±5%
EWWR0010	10W	$1\Omega \leq R \leq 8.2K\Omega$	700V	±250ppm/°C	±5%

#### Dimensions

Unit: mm

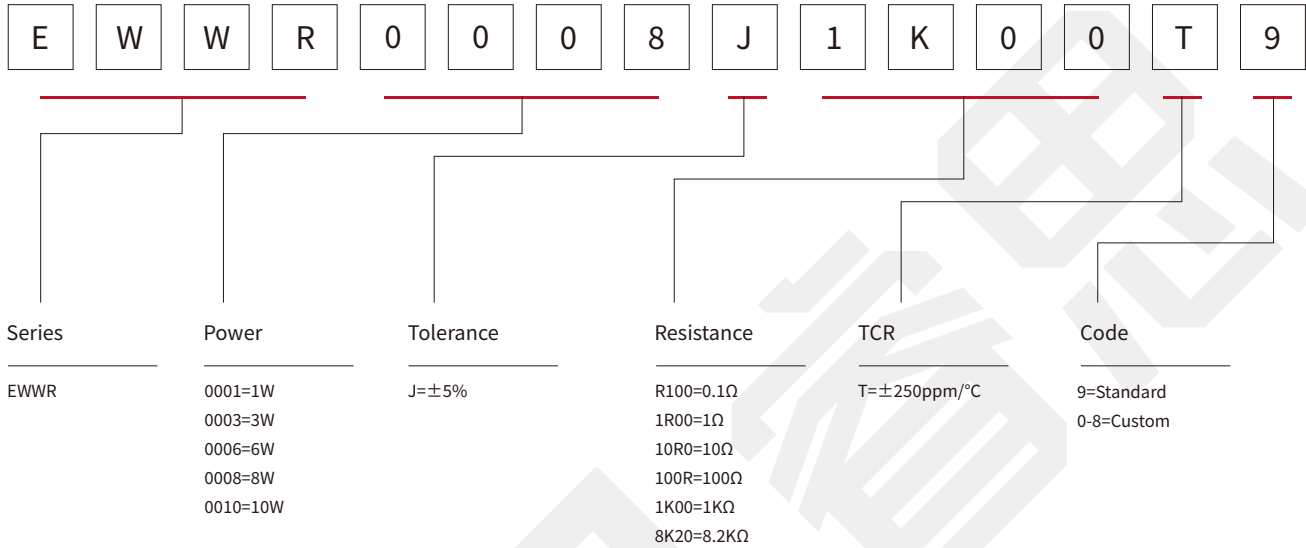
Resistor



Series	L	D	l	d	Termination	Packaging	Quantity Per Reel	MOQ
EWWR0001	11.0±1.0	4.5±0.5	27±2.0	0.65±0.05	Axial lead	Bulk	100pcs	5000pcs
EWWR0003	15.0±1.0	5.5±0.5	27±2.0	0.75±0.05	Axial lead	Bulk	100pcs	5000pcs
EWWR0006	23.5±1.0	8.0±1.0	27±2.0	0.75±0.05	Axial lead	Bulk	100pcs	1200pcs
EWWR0008	31.5±1.0	9.0±1.0	27±2.0	0.75±0.05	Axial lead	Bulk	50pcs	1200pcs
EWWR0010	36.5±1.0	9.0±1.0	27±2.0	0.75±0.05	Axial lead	Bulk	50pcs	1000pcs

### Part Number Information

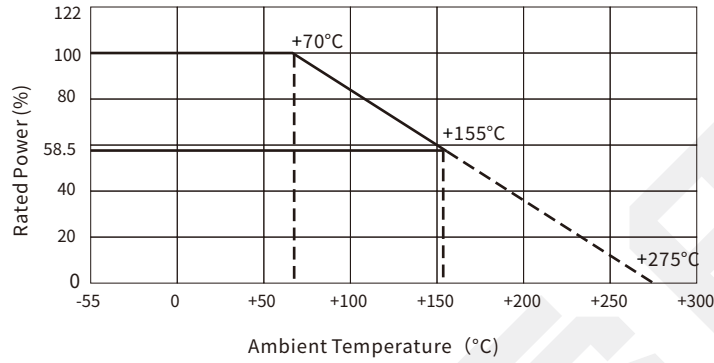
Example: EWWR0008J1K00T9 (EWWR 8W  $\pm 5\%$  1K $\Omega$   $\pm 250$ ppm/ $^{\circ}$ C Standard)



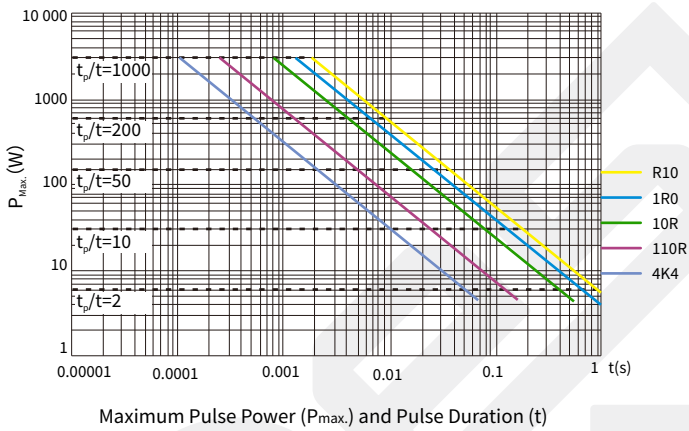
### Performance

Test	Test Method	Standards	Test Limits
Short Time Overload	10 times rated power, 5s	IEC 60115-1 4.13	$\Delta R \leq \pm (1.0\% + 0.05\Omega)$
Withstand Voltage	Apply a DC voltage of 100V between the electrode and the substrate for 60s	IEC 60115-1 4.7	No breakdown or flashover
Terminal Strength	Tensile: 10N, 30s, Bending: 5N, 2 cycle, Torsion: 5 cycle	IEC 60115-1 4.16	$R \leq \pm (1.0\% + 0.05\Omega)$ No visible damage
Vibration	10~55~10Hz/min, Amplitude 1.5mm, 2h in each directions of X Y Z	MIL-STD-202 Method 204	$R \leq \pm (1.0\% + 0.05\Omega)$ No visible damage
Resistance to Solder Heat	+260 $^{\circ}$ C $\pm 5^{\circ}$ C tin bath for 10s+1s	IEC 60115-1 4.18	$\Delta R \leq \pm (1.0\% + 0.05\Omega)$ No visible damage
Solderability	+245 $^{\circ}$ C+5/-10 $^{\circ}$ C tin bath for 2s+0.5s, immerse 3mm.	IEC 60115-1 4.17	90% minimum coverage
Thermal Shock	-55 $^{\circ}$ C $\pm 3^{\circ}$ C, 30min~room temperature, 2~3min~+125 $^{\circ}$ C $\pm 3^{\circ}$ C, 30min~room temperature, 2~3min, 5 cycle	IEC 60115-1 4.19	$\Delta R \leq \pm (1.0\% + 0.05\Omega)$ No visible damage
Moisture Resistance	+40 $^{\circ}$ C $\pm 2^{\circ}$ C, 90%~95%RH, 0.1 times rated voltage, 1000h+48/-0h	IEC 60115-1 4.24	$\Delta R \leq \pm (5.0\% + 0.1\Omega)$
Load Life	1000h+48/-0h @ room temperature, rated voltage AC, 1.5h on, 0.5h off	IEC 60115-1 4.25.1	$\Delta R \leq \pm (5.0\% + 0.1\Omega)$

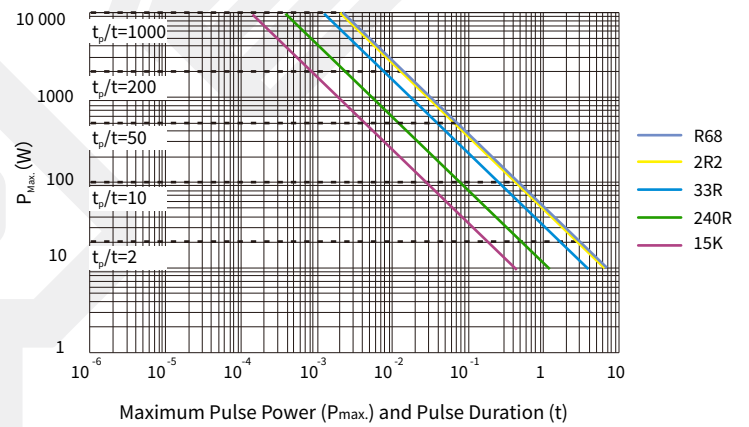
### Derating Curve



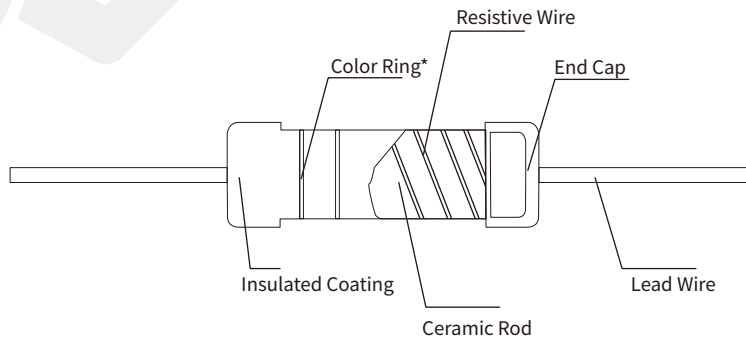
### Pulse Power Curve (3W)



### Pulse Power Curve (10W)



### Construction



\*The coating of EWWR0008 and EWWR0010 is green insulation coating without color ring identification.

### Revision

Version	Revised Content	Date	Approver
V0	Initial Issue	2021.4.28	LFY
V1	<ol style="list-style-type: none"><li>1. Change datasheet to the new template</li><li>2. Add Construction Diagram</li><li>3. Add MOQ</li></ol>	2024.6.18	LFY

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