



WIREWOUND FIXED RESISTORS

JDRWW Series

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Features

1. Good heat-durability, high overload power.
2. Tolerance: $\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$ available.
3. Tinned copper wire.
4. RoHS compliant.



Specifications

Spec No.	Power	Dimension (mm)				Resistance	TCR ppm/°C	V1	V2	V3	Tol.	Tape
		L ± 0.5	D ± 0.5	H ± 3	d ± 0.1							
R012	1/2W	9.0	3.2	28	0.55	0.1 Ω ~20 Ω	± 400	150V	400V	250V	$\pm 2\%$ $\pm 5\%$	TP52
						20 Ω ~50 Ω	± 300					
R011S	1W	9.0	3.2	28	0.55	0.1 Ω ~20 Ω	± 400	150V	400V	250V	$\pm 2\%$ $\pm 5\%$	TP52
						20 Ω ~100 Ω	± 300					
R011	1W	11.0	4.5	28	0.65	0.1 Ω ~20 Ω	± 400	250V	400V	350V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~100 Ω	± 300					
R021S	2W	11.0	4.5	28	0.65	0.1 Ω ~20 Ω	± 400	350V	600V	500V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~500 Ω	± 300					
R021	2W	15.0	5.0	28	0.70	0.1 Ω ~20 Ω	± 400	350V	600V	500V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~500 Ω	± 300					
R031S	3W	15.0	5.0	28	0.70	0.1 Ω ~20 Ω	± 400	350V	600V	500V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~1K Ω	± 300					
R031	3W	17	6.0	28	0.70	0.1 Ω ~20 Ω	± 400	500V	600V	750V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~1K Ω	± 300					
R051S	5W	17	6.0	28	0.70	0.1 Ω ~20 Ω	± 400	500V	600V	750V	$\pm 2\%$ $\pm 5\%$	TP65
						20 Ω ~1K Ω	± 300					
R071S	7W	24	8.0	28	0.75	0.1 Ω ~18K Ω	± 300	500V	600V	750V	$\pm 2\%$ $\pm 5\%$	TP71
R071	7W	31	8.0	28	0.75	0.1 Ω ~18K Ω	± 300	500V	600V	750V	$\pm 2\%$ $\pm 5\%$	Bulk
R101	10W	35	8.0	28	1.00	1.0 Ω ~5K Ω	± 300	500V	600V	750V	$\pm 2\%$ $\pm 5\%$	Bulk

V1: Maximum operating voltage

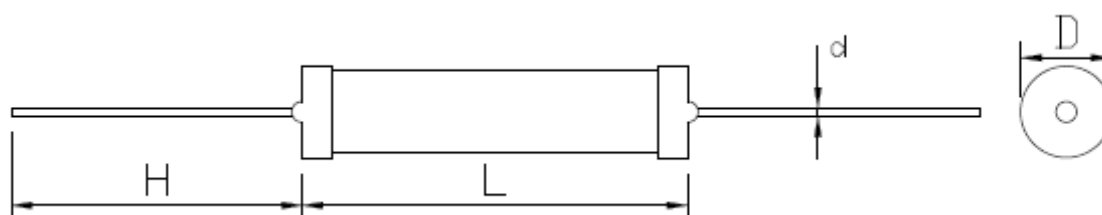
V2: Maximum overload voltage

V3: Maximum insulation voltage

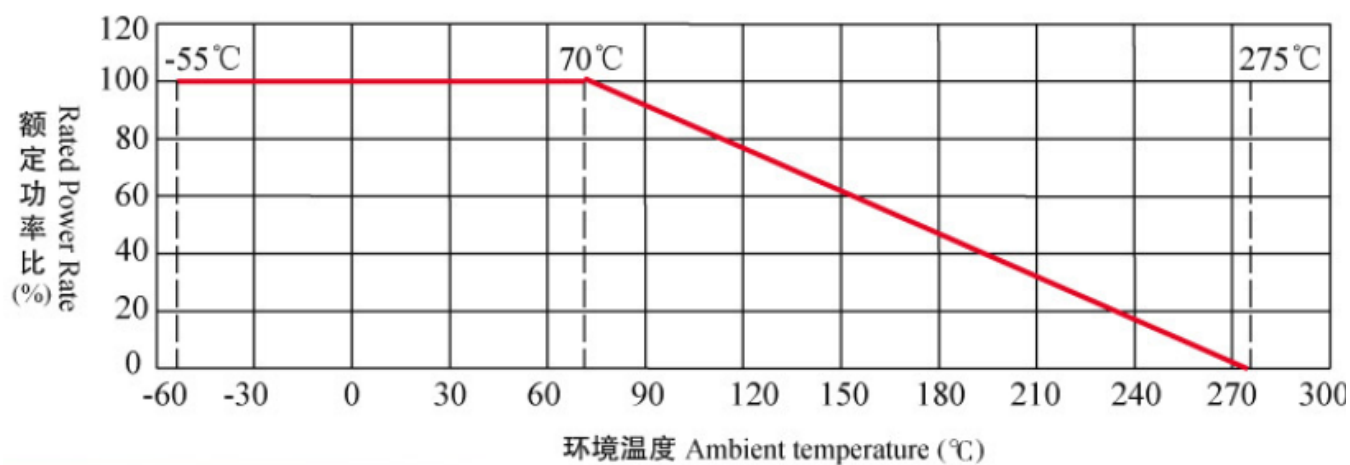
Rated voltage = $\sqrt{\text{Power} \times \text{Resistance}}$

V4: The smaller value between V1 and Rated voltage

Dimension



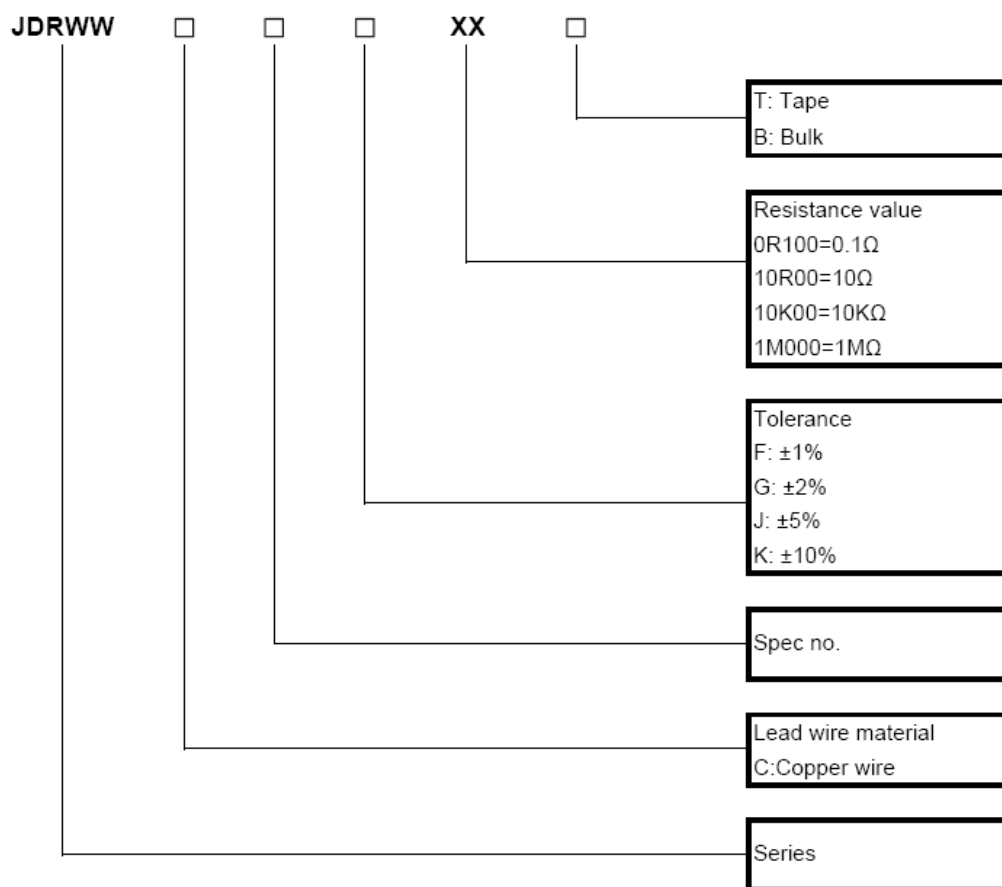
Rated Power Derating Curve



Reliability Test

Test Item	Test Condition	Performance
Temperature coefficient	Test the resistance value at +25°C and +125°C, calculate the change value of resistance per °C	See above specification
Short time overload	Load 5*V4 for 1/4-4W or 10*V4 for 5-10W for 5 seconds	$\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$
Pulse overload	Load 4*V4 for 10000±200 cycles (1 cycle: 1s on and 25s off)	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Solder-heat resistance	Immerge into Tin stove at 350±10°C for 2~3 seconds	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Solderability	Immerge into Tin stove at 245±10°C for 2~3 seconds	The soldering area is over 95%
Temperature cycle	-55°C for 30 minutes → 25°C for 10~15 minutes → +275°C for 30 minutes, total 5 cycles	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Load life in humidity	Load V4 (1.5 h ON and 0.5h OFF) at 40±2°C 90~95%RH for 1000h	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$
Load life in heat	Load V4 (1.5 h ON and 0.5h OFF) at 70±2°C for 1000h	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$
Nonflammability	Load V4 by 5x, 10x, 16x respectively for 5 minutes	No visible flame

Part Number Rule



Remark: For tape dimensions, please refer file "Tape Specification".

For example:

JDRWW-C-R021-J22R00T

2W 11x ϕ 4.5 $\pm 5\%$ 22 Ω Copper lead wire Tape Wirewound fixed resistor

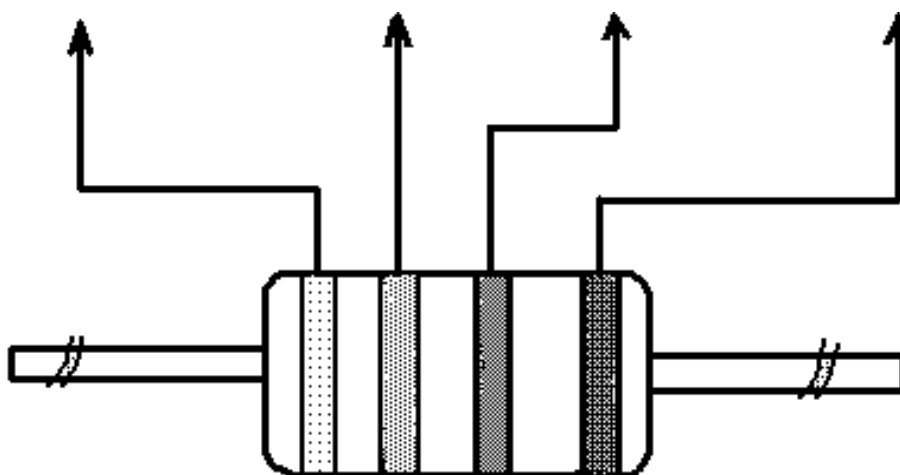
JDRWW-C-R031-G4K70B

3W 15x ϕ 5 $\pm 2\%$ 4.7K Ω Copper lead wire Bulk Wirewound fixed resistor

Color Rings

The resistance and tolerance of the resistor are indicated with the color code refer to JIS-C-0802.

Color	1st ring	2nd ring	Multiple	Tolerance
Black	0	0	1x	
Brown	1	1	10x	±1%
Red	2	2	100x	±2%
Orange	3	3	1000x	
Yellow	4	4	10000x	
Green	5	5	-----	
Blue	6	6	-----	
Violet	7	7	-----	
Grey	8	8	-----	
White	9	9	-----	
Gold			0.1x	±5%
Silver			0.01x	±10%



Remark: For 7W or above, we only print parameters on the surface.

For special specifications, please consult us.