



METAL OXIDE FILM FIXED RESISTOR

JDRMOF Series

Deqing Jiahe Electronic Technology Co., Ltd.

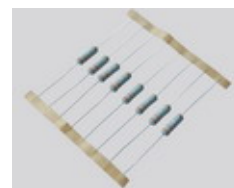
TEL: +86-572-8051676

FAX: +86-572-8051676

sales@jiahe-electronic.com

Features

1. Small size, high performance.
2. Tolerance: $\pm 2\%$, $\pm 5\%$ available.
3. Tinned copper wire or copper clad steel lead wire available.
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							
R014	1/4W	6.3	2.3	28	0.50	0.1 Ω ~100K Ω	± 350	250V	400V	250V	$\pm 2\%$ $\pm 5\%$	TP26/TP52
R012S	1/2W	6.3	2.3	28	0.50	0.1 Ω ~100K Ω	± 350	250V	400V	250V	$\pm 2\%$ $\pm 5\%$	TP26/TP52
R012	1/2W	9.0	3.2	28	0.55	0.1 Ω ~120K Ω	± 350	250V	400V	250V	$\pm 2\%$ $\pm 5\%$	TP52
R011S	1W	9.0	3.2	28	0.55	0.1 Ω ~120K Ω	± 350	350V	600V	350V	$\pm 1\%$ $\pm 2\%$ $\pm 5\%$	TP52
R011	1W	11.0	4.5	28	0.65	0.1 Ω ~150K Ω	± 350	350V	600V	350V	$\pm 2\%$ $\pm 5\%$	TP65
R021S	2W	11.0	4.5	28	0.65	0.1 Ω ~150K Ω	± 350	350V	600V	350V	$\pm 2\%$ $\pm 5\%$	TP65
R021	2W	15.0	5.0	28	0.70	0.1 Ω ~150K Ω	± 350	350V	600V	350V	$\pm 2\%$ $\pm 5\%$	TP65
R031S	3W	15.0	5.0	28	0.70	0.1 Ω ~150K Ω	± 350	350V	600V	350V	$\pm 2\%$ $\pm 5\%$	TP65
R031	3W	17.0	6.0	28	0.70	0.1 Ω ~150K Ω	± 350	500V	800V	500V	$\pm 2\%$ $\pm 5\%$	TP65
R051S	5W	17.0	6.0	28	0.70	0.1 Ω ~150K Ω	± 350	500V	800V	500V	$\pm 2\%$ $\pm 5\%$	TP65
R051	5W	24.0	8.0	38	0.70	0.1 Ω ~180K Ω	± 350	750V	1000V	750V	$\pm 2\%$ $\pm 5\%$	TP90

V1: Maximum operating voltage

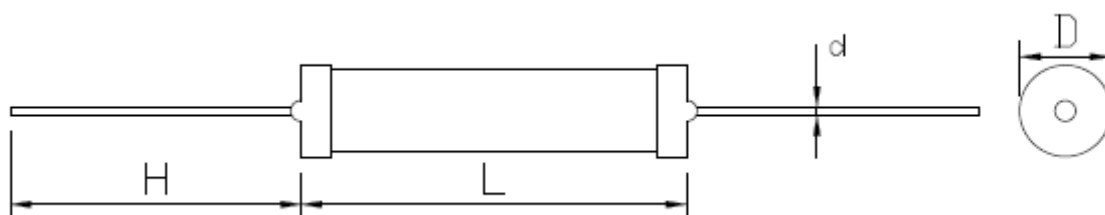
V2: Maximum overload voltage

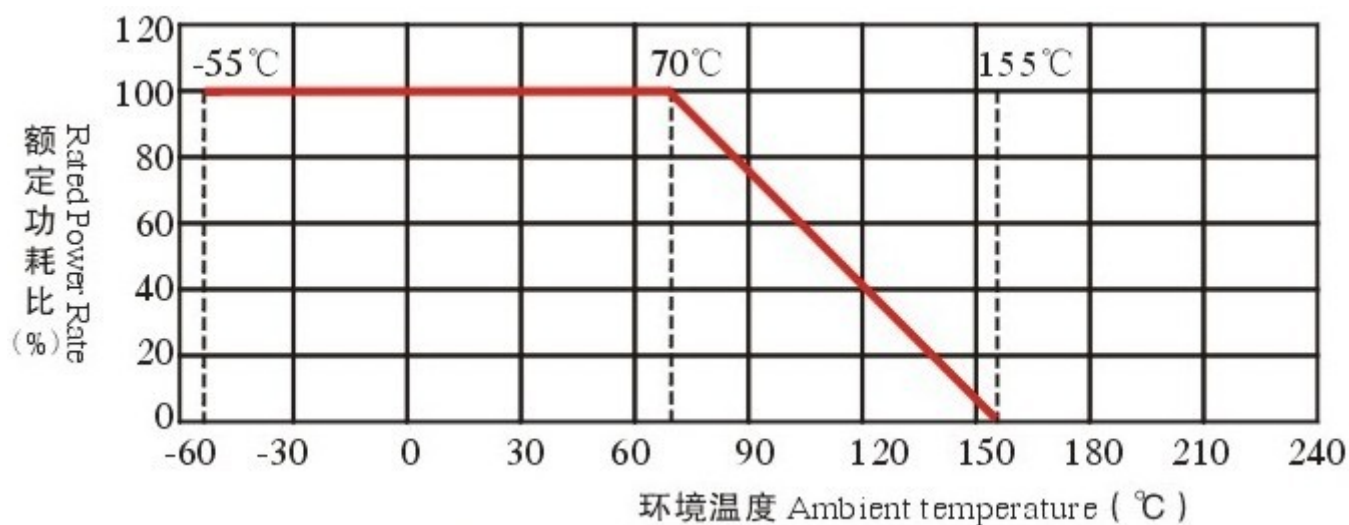
V3: Maximum insulation voltage

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

V4: The smaller value between V1 and Rated voltage

Demension

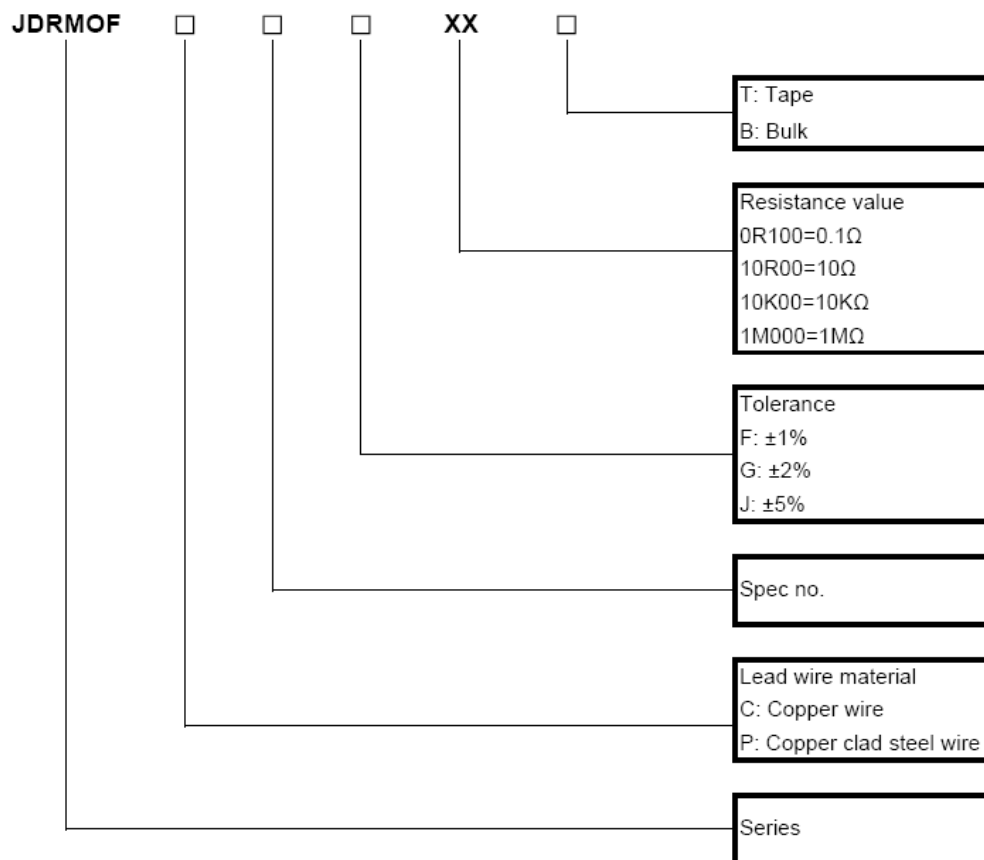




Reliability Test

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	$\pm 350\text{ppm}/^{\circ}\text{C}$
Short time overload	Load $2.5 \times V_4$ for 5 seconds	$\Delta R \leq \pm(01\%R_0 + 0.05\Omega)$
Pulse overload	Load $4 \times V_4$ for 10000 ± 200 cycles (1 cycle: 1s on and 25s off)	$\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$
Solder-heat resistance	Immerge into Tin stove at $350 \pm 10^{\circ}\text{C}$ for 2~3 seconds	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Solderability	Immerge into Tin stove at $245 \pm 10^{\circ}\text{C}$ for 2~3 seconds	The soldering area is over 95%
Temperature cycle	-55°C for 30 minutes → 25°C for 10~15 minutes → +125°C for 30 minutes, total 5 cycles	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Load life in humidity	Load V_4 (1.5 h ON and 0.5h OFF) at $40 \pm 2^{\circ}\text{C}$ 90~95%RH for 1000h	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$
Load life in heat	Load V_4 (1.5 h ON and 0.5h OFF) at $70 \pm 2^{\circ}\text{C}$ for 1000h	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$

Part Number Rule



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

For example:

JDSMOF-C-R011S-J22R00T

1W 9.0x $\varnothing$ 3.2 $\pm 5\%$ 22 Ω Copper lead wire Tape Metal oxide film fixed resistor

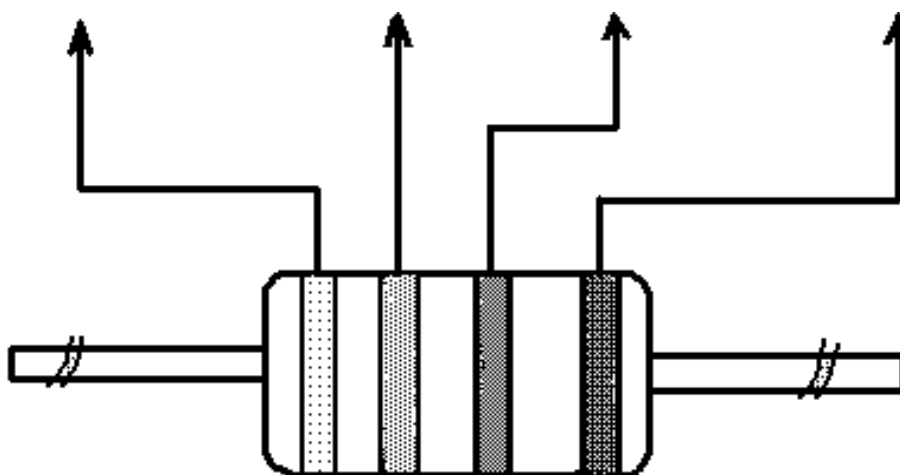
JDSMOF-P-R031-G4K70B

3W 17x $\varnothing$ 6 $\pm 2\%$ 4.7K Ω Copper clad steel lead wire Bulk Metal oxide film 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	
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%



For special specifications, please consult us.