



Metal Film Resistors, High Precision Resistors

Power Rating: 1/8W-3W

Resistance Value: 0.1Ω-22MΩ

Resistance Tolerance: ±0.1%, ±0.25%, ±0.5%, ±1%

Operating Temperature Range :-55°C ~ 155°C



● Preview:

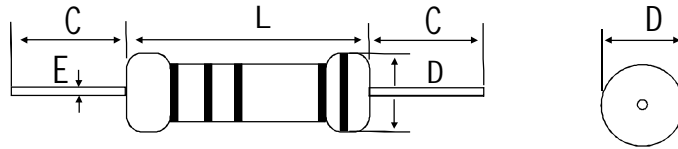
1. Metal film resistors are made by depositing special treated metal film onto ceramic core in ultra high vacuum. Both ends of the core are plated with precious metal to ensure low noise and small temperature coefficient.
2. Film the metal in Vacuum, the surface coating is green (blue) resin with the good waterproof.
3. Low noise, resistance to high temperature, low temperature coefficient, high overload power, and good high frequency performance.
4. Power: 1/8W, 1/6W, 1/4WS, 1/4W, 1/2WS, 1/2W, 1WS, 1W, 2WS, 2W, 3WS, 3W, 5WS
5. Delivery: 5-7 days.
6. Conforms to the ROHS standard and the LEAD-FREE non-lead standard.

● Applications:

.widely applied in high fidelity stereo, electronic calculators, computers, testing instruments, meters, autocontrolled equipment, military devices and aerospace equipment.

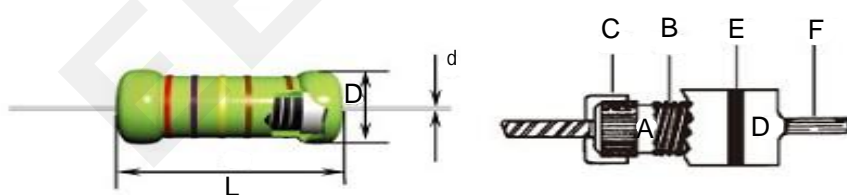


● Dimensions



POWER RATING	DIMENSIONS (mm)				MAX WORKING VOLTAGE.	MAX OVERLOAD VOLTAGE.
	$L \pm 1$	$D \pm 0.5$	$E \pm 0.05$	$C \pm 3$		
1/6W	3.8	2.1	0.4	26	200V	400V
1/4W	6	2.3	0.45	26	250V	500V
1/2W	9	3.2	0.55	26	350V	700V
1WS	9	3.2	0.55	26	350V	700V
1W	11	4	0.65	35	350V	700V
2WS	11	4	0.65	35		
2W	15	5	0.75	35	500V	1000V
3WS	15	5	0.75	35		
3W	17	6	0.75	35	500V	1000V
5WS	17	6	0.75	35		

● Construction Drawing:



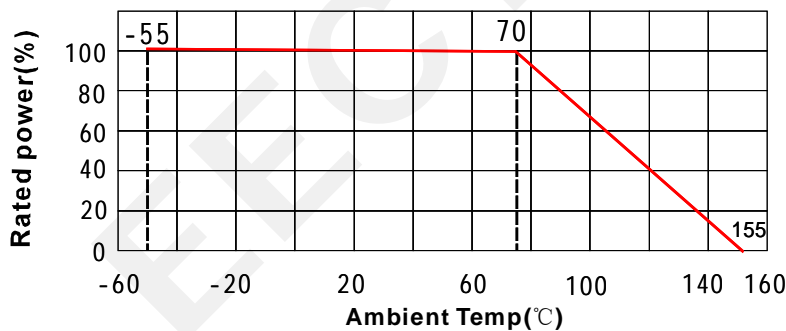
- A.High heat exchanged Ceramic Core .
- B.High stability Electric conduction film
- C.Iron Cap
- D.Epoxy resin coating
- E.Color Ring
- F.Tinned copper lead wire or CP lead wire



● Performance Specifications

Test Item	Test Condition	Performance
Temperature coefficient	Test the resistance value at normal temperature and normal temperature added 100°C, calculated per °C resistance value change rate	±100PPM/°C
Temp. Range	\	-55°C~200°C
Short Time Overload	2.5×rated voltage or Max. overload voltage (get the lower) for 5 seconds	$\Delta R \leq \pm(0.5\%R_0 + 0.05\Omega)$
Pulse overload	At 4×rated voltage or Max. pulse overload voltage (get the lower) for 5 seconds	$\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$
Resistance to soldering heat	Immerge into the 350±10°C tin stove for 2-3 seconds	$\Delta R \leq \pm(0.5\%R_0 + 0.05\Omega)$
Solderability	Immerge into the 245±5°C tin stove for 2-3 seconds	The soldering area is over 95%
Load Life in humidity	Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 40±2°C and 90%-95% relative humidity.	$\Delta R \leq \pm(2\%R_0 + 0.1\Omega)$
Load Life in heat	Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 70±2°C.	$\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$
Insulation Voltage	DC 1/4W 1/2W :250V 1W 2WS:350V 2W 3WS 3W:500V	no breakdown, no flashover
Temperature Cycle	At -55°C for 30min, then at +25°C for 10-15 min, then at +155% for 30 min, then at +25°C for 10-15 min, total 5 cycles.	$\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$

● Derating



● How To Order

MF	1W	100KΩ	F	T/B
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- ① Type: MF
- ② Rated Power (W): 1/8W-5Ws
- ③ Resistance Value (Ω): 0.1Ω-22MΩ
- ④ Tolerance (%): ±0.1%~±1%
- ⑤ Packing (T/R: tape & reel, T/B: tape in box, bulk)