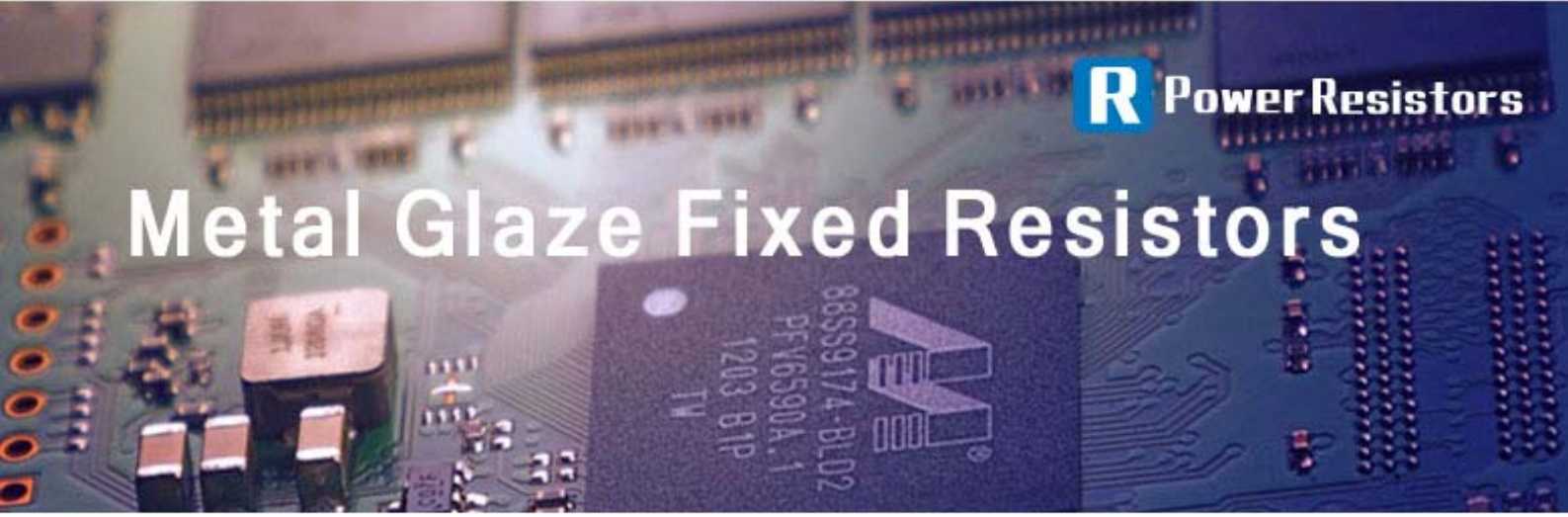


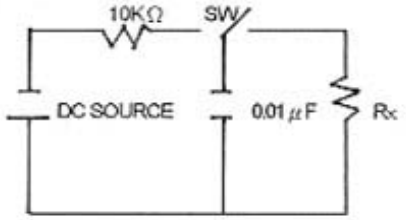
R Power Resistors

Metal Glaze Fixed Resistors

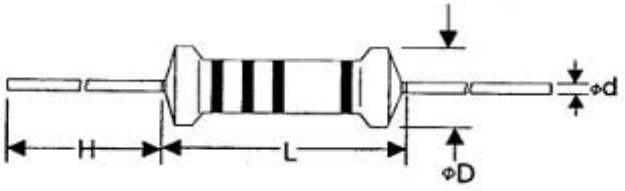
Performance Specification

Characteristics	Test Methods	Limits
Temperature Coefficient JIS-C-5202 5.2	Natural resistance change per temp degree centigrade $\frac{R2 - R1}{R1(t2-t1)} \times 10$ (PPM / ℃) R1:Resistance value at room temperature (t 1) R2:Resistance value at room tem. Plus 100 ℃(t 2)	±200 PPM / ℃ Max.
Short time overload JIS-C-5202 5.5	Permanent resistance change alter the application of a potential of 2.5 times RCWV for 5 seconds.	Resistance change rate is ±(1%+0.05Ω) With no evidence of mechanical damage.
Dielectric withstanding Voltage JIS-C-5202 5.7	Resistors Shall be clamed in the through of a 90° Metallic V-block and shall be tested at AC potential respectively specified in the table 1. For 60 +10/-0 seconds.	No evidence of flashover mechanical damage, arcing or insulation break down.
Pulse overload JIS-C-5202 5.8	Resistance change after 10,000 cycles (1 second "0n", 25 Seconds "off") at 4 time RCWV or the max. pulse overload voltage.	Resistance change rate is ±(2%+0.05Ω) With no evidence of mechanical damage.
Temperature cycling JIS-C-5202 7.4	Resistance change after continuous 5 cycles for duty shown below: Step 1: - 55 ±3 · 30 minutes Step 2: Room temp. 10~15 minutes Step 3: + 55 ±2 30 minutes Step 4: Room temp. 10~15 minutes	Resistance change rate is ±(1% +0.05Ω) With no evidence of mechanical damage.
Load life in humidity JIS-C-5202 7.9	Resistance change after 1,000 hours (1.5hours "0n", 0.5" hour "off") at RCWV in a humidity test chamber controlled at 40°C ±2°C and 90 to 95% relative humidity.	Resistance change rate is ±(5% +0.05Ω) With no evidence of mechanical damage.
Load life JIS-C-5202 7.10	Permanent resistance change after 1,000 hours operating at RCWV with duty cycle of (1.5hours "0n", 0.5" hour "off") at 70°C ±2°C ambient.	Resistance change rate is ±(5% +0.05Ω) With no evidence of mechanical damage.
Terminal strength JIS-C-5202 6.1	Direct load : Resistance to a 2.5 kgs direct load for 10 seconds in the direction of the Longitudinal axis of the terminal leads. Twist test: Terminal leads shall be bent through 90° at a point of about 6 mm from the Body of the resistor and shall be rotated through 360° about the original axis of the bent terminal in alternating direction for a total of 3 rotations.	No evidence of mechanical damage
Resistance to soldering head JIS-C-5202 6.4	Permanent resistance change when leads immersed to 3.2 to 4.8 mm from The body in 350°C ±10°C solder for 3 ±0.5 seconds.	Resistance change rate is ±(1%+0.05Ω) With no evidence of mechanical damage.
Solderability JIS-C-5202 6.5	The area covered with a new ,smooth,clean,shiny, and continuous continuous surface free from concentrated pinholes. Test temp of solder: 235°C ±5°C. Dwell time in solder: 3 +0.5/-0 seconds.	95% coverage Min.
Surge Withstanding Voltage	The following discharge cycle is repeated in the circuit in the left fig. 2.5 sec. ON, 2.5 sec. OFF, 10 cycles. Applied Voltage (DC Source):	Allowable resistsnce change ±10%. Test circuit:

	1/4W	1/2W	1 W	2 W
100K~1M	3000V	4000V	5000V	8000V
1.1M~6.2M	4000V	5000V	6000V	9000V
>6.8M	6000V	6000V	9000V	10000V



Dimension:



Part No.	Style	Power Rating at 70°C	Dimension (mm)			
			D Max	L Max	d ±0.05	H ±3
MG25	MG1/4W	0.25 W	2.7	7.00	0.6	28
MG50	MG1/2W	0.50 W	3.8	10.0	0.6	28
MG100	MG 1 W	1.00 W	5.2	13.0	0.7	28
MG200	MG 2 W	2.00 W	6.0	17.0	0.8	28

Rating

Style	Max. working voltage	Max. Overload voltage	Dielectric Withstanding voltage	Surge withstanding voltage			Resistance range
				<1MΩ	1.1MΩ~ 6.2MΩ	>6.8MΩ	
MG 1/4W	500V	700V	500V	3000V	4000V	6000V	100KΩ~33MΩ
MG 1/2W	700V	1000V	700V	4000V	5000V	8000V	100KΩ~33MΩ
MG 1 W	1000V	1400V	1000V	5000V	6000V	9000V	100KΩ~33MΩ
MG 2 W	1000V	1400V	1000V	8000V	9000V	10000V	100KΩ~33MΩ

Derating Curve: