

MGR Series

Metal Glazed Resistors

- High stable performance against environmental conditions and over load voltage.
- Wide resistance range.



■ STANDARD GENERAL SPECIFICATIONS

Model	Rated Power at 70°C	Operating Temperature Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage		Resistance Range			TCR (PPM/°C)
					Silicone Risin	Epoxy Risin	±1%	±2%	±5%	
MGR 0623	1/4 W	-55°C ~ +175°C	DC 1600V AC 1150V	DC 2000V AC 1500V	400V	500V	10kΩ~100MΩ		1kΩ~100MΩ	±100
MGR 0932	1/2 W		DC 3500V	4000V	500V	700V	101MΩ~1GΩ			±200
MGR 1145	1 W		DC 4500V	5000V	500V	1000V	10kΩ~100MΩ		1kΩ~100MΩ	±100
MGR 1550	2 W		DC 7000V	14000V	700V	1200V	101MΩ~1GΩ			±200

■ HIGH POWER RATING GENERAL SPECIFICATIONS

Model	Rated Power at 70°C	Operating Temperature Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage		Resistance Range			TCR (PPM/°C)
					Silicone Risin	Epoxy Risin	±1%	±2%	±5%	
MGR 0623	1/2 W	-55°C ~ +175°C	DC 1700V	2500V	400V	500V	10kΩ~100MΩ		1kΩ~100MΩ	±100
MGR 0932	1 W		DC 4000V	4500V	500V	700V	101MΩ~1GΩ			±200
MGR 1145	2 W		DC 7000V	14000V	700V	1200V	10kΩ~100MΩ		1kΩ~100MΩ	±100
MGR 1550	3 W		DC 10000V	14000V	700V	1200V	101MΩ~1GΩ			±200

* Operating Voltage = $\sqrt{P \cdot R}$ or Max. operating voltage listed above, whichever is lower.

* Operating Voltage = $2.5 \cdot \sqrt{P \cdot R}$ or Max. overload voltage listed above, whichever is lower.

* Silicone Risin coating color : Brown (Flame-Proof) / Epoxy Risin coating color : Light Blue

■ CHARACTERISTICS

Temperature Coefficient	As Spec	Resistance value at room temperature and room temperature +125°C
Short Time Overload	±(1.0%+0.05Ω)	JIS-C-5201-1 5.5 (RCWV*2.5 or Max. overload voltage whichever is lower for 5 seconds)
Insulation Resistance	±10,000MΩ Over	MIL-STD-202F Method 302 (500±50V DC During 1 min V-Block method)
Endurance	±(3.0%+0.05Ω)	MIL-STD-202F Method 108A (70±2°C, RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF")
Damp Heat with Load	±(5.0%+0.05Ω)	MIL-STD-202F Method 103B (40±2°C, 90~95% R.H., for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF")
Dielectric Withstanding Voltage	By Type	MIL-STD-202F Method 301 (In V-Block for 1 minute)
Intermittent Overload	±(1.0%+0.05Ω)	JIS-C-5201-1 5.8 (4 times RCWV for 10000 cycles with 1sec "ON" and 25 sec "OFF")
Resistance To Soldering Heat	±(1.0%+0.05Ω)	260°C±5°C for 2±1 seconds
Terminal Strength	Tensile : ≥ 2.5kg	Direct Load for 10 sec. In the direction off the terminal leads

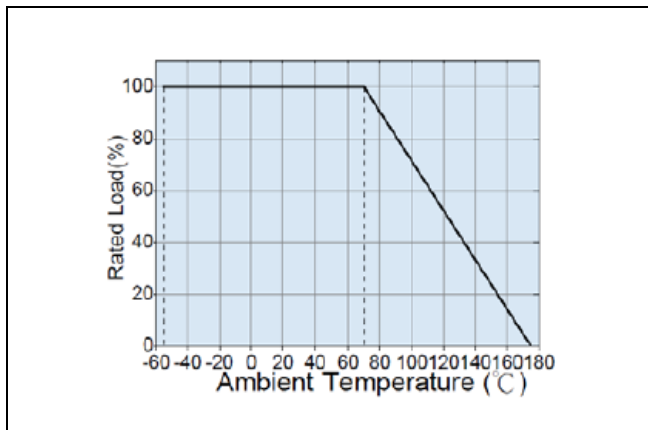
* RCWV (Rated continuous working voltage) = $\sqrt{P \cdot R}$ or Max. operating voltage whichever is lower.

* Storage Temperature : 15~28°C ; Humidity < 80%RH

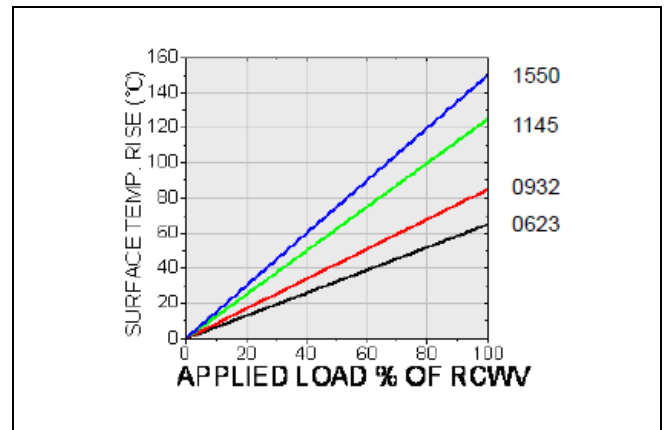
■ DIMENSIONS [mm]

	Model	L	D	H	d
	MGR 0623	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
	MGR 0932	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03
	MGR 1145	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03
	MGR 1550	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03

■ DERATING CURVE



■ SURFACE TEMP RISE



■ TAPING/PACKING SPECIFICATIONS

Packing Methods

Reel Packing

(1) RESISTOR
 (2) BANDOLIER
 (3) PAPER
 (4) FLANGE
 (5) CYLINDER

Ammo Packing

Model	Packaging	Packing Methods			Reel Packing		Ammo Packing			
		A	B1-B2 Max	S	Across Flange (A)	Qty	A	B	C	Qty
MGR 0623		52±1-0	1.2	5	72	5,000	80	105	264	5,000
MGR 0932		52±1-0	1.2	5	72	2,500	80	46	264	1,000
MGR 1145		52±1-0	1.5	5	95	2,000	103	82	265	1,000
MGR 1550		52±1-0	1.5	10	95	1,000	103	96	265	1,000

■ ORDERING PROCEDURE EXAMPLE

MGR	0932	F	T	F	U	1004	S
Product Type	Dimensions (LxD)	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance	Special
	0623: 6.3x2.3 0932: 9.0x3.2 1145: 11.5x4.5 1550: 15.5x5.0	F: ±1% G: ±2% J: ±5%	A: Ammo T: Taping Reel	E: ±100 F: ±200	V: 1/4W U: 1/2W T: 1W S: 2W R: 3W	1003: 100KΩ 1004: 1MΩ 1007: 1GΩ	S: Silicone Resin E: Epoxy Resin