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℃	Operating Temperature Range		Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage		Resistance Range			TCE (PPM/℃)	Measured
		Silicone Resin	Epoxy Resin			Silicone Resin	Epoxy Resin	±1%	±2%	±5%		
0623	1/4W	-55℃ ~ +225℃	-55℃ ~ +155℃	DC1600V AC1150V	DC2000V AC1500V	400V	500V	100KΩ~1MΩ			±100	DC100V 100K≤R < 1M DC1000V 1M≤R
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
0932	1/2W			DC3500V	4000V	500V	700V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1145	1W			DC4500V	5000V	500V	1000V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1550	2W			DC7000V	14000V	700V	1200V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1760	3W			DC12000V	16000V	1000V	1200V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	

HIGH POWER RATING GENERAL SPECIFICATIONS

Model	Rated Power At 70℃	Operating Temperature Range		Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage		Resistance Range			TCE (PPM/℃)	Measured
		Silicone Resin	Epoxy Resin			Silicone Resin	Epoxy Resin	±1%	±2%	±5%		
0623	1/2W	-55℃ ~ +225℃	-55℃ ~ +155℃	DC1700V	2500V	400V	500V	100KΩ~1MΩ			±100	DC100V 100K≤R < 1M DC1000V 1M≤R
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
0932	1W			DC4000V	4500V	500V	700V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1145	2W			DC5000V	10000V	500V	1000V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1550	3W			DC10000V	14000V	700V	1200V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	
1760	5W			DC13000V	18000V	1000V	1200V	100KΩ~1MΩ			±100	
								100KΩ~10MΩ			±200	
								11MΩ~500MΩ			±500	

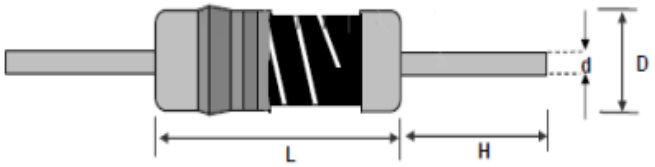
* Operating Voltage = $\sqrt{(P \times R)}$ or Max. operating voltage listed above, whichever is lower.
* Overload Voltage = $2.5 \times \sqrt{(P \times R)}$ or Max. overload voltage listed above, whichever is lower.
* Silicone Resin coating color : Brown (Flame-Proof) / Epoxy Resin coating color : Light Blue.

CHARACTERISTICS

Test		Condition
Temperature Coefficient (T.C.R)	As Spec	Resistance value at room temperature and room temperature +125℃
Short Time Overload	±(1.0%+0.05Ω)	JIS-C5201-1 5.5 (RCWV×2.5 or Max. overload voltage whichever is lower for 5seconds)
Insulation Resistance	±10,000MΩ Over	MIL-STD-202F Method 302 (500±50Vdc During 1min. V-Block method)
Endurance	±(3.0%+0.05Ω)	MIL-STD-202F Method 108B (70±2℃, RCWV for 1000hrs With 1.5hrs "ON" and 0.5hrs "OFF")
Damp Heat with Load	±(5.0%+0.05Ω)	MIL-STD-202F Method 103B (40±2℃, 90~95%RH, for 1000hrs with 1.5hrs "ON" and 0.5hrs "OFF")
Dielectric Withstanding Voltage	By Type	MIL-STD-202F Method 301 (In-V-Block for 1minute)
Intermittent Overload	±(1.0%+0.05Ω)	JIS-C-5201-1 5.8 (4times RCWV for 10000cycles with 1esc "ON" and 25sec "OFF")
Resistance To Soldering Heat	±(1.0%+0.05Ω)	260℃±5℃ for 2±1seconds
Terminal Strength	Tensile : > 2.5kg	Direct Load for 10sec. In the direction off the terminal leads

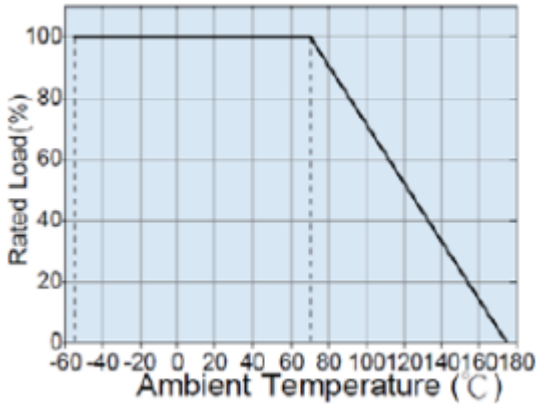
* RCWV (Rated continuous working voltage) = √(P×R) or Max. operating voltage whichever is lower.
* Storage Temperature : 15~28℃, Humidity < 80%RH

DIMENSIONS[mm]

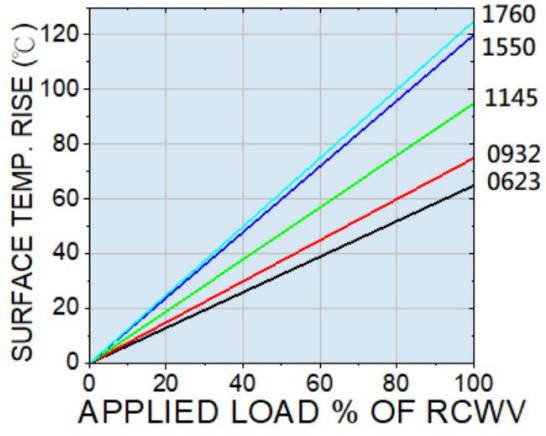


Model	L	D	H	D
MGR0623	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
MGR0932	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03
MGR1145	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03
MGR1550	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03
MGR1760	17.5±1.0	6.0±0.5	35±2.0	0.78±0.03

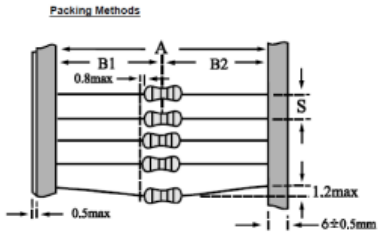
DERATING CURVE

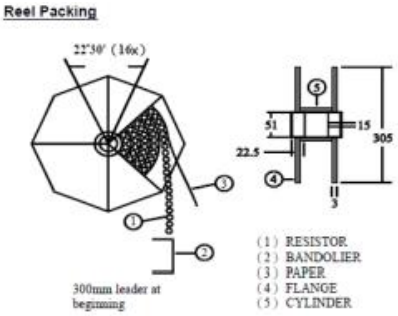


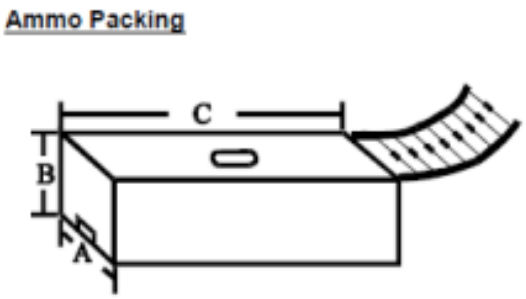
SURFACE TEMP RISE



TAPING/PACKING SPECIFICATIONS







Model / Packaging	Packing Methods			Reel Packing		Ammo Paking			
	A	B1-B2 Max	S	Across Flange (A)	Qty	A	B	C	Qty
MGR0623	52+1-0	1.2	5±0.3	72	5,000	79±2	100±3	257±5	5,000
MGR0932	52+1-0	1.2	5±0.3	72	2,500	79±2	58±3	257±5	1,000
MGR1145	52+1-0	1.5	5±0.3	95	2,000	103±2	82±3	262±5	1,000
MGR1550	52+1-0	1.5	10±0.8	95	1,000	103±2	96±3	265±5	1,000
MGR1760	73+1-0	1.5	10±0.8	95	1,000	103±2	82±3	262±5	500

ODERING PROCEFURE EXAMPLE

MGR	0932	F	T	F	U	1004	S
Product Type	Dimensions (L×D)	Resistance Tolerance	Packaging Code	TCR (PPM/℃)	Power Rating	Resistance	Special
	0623 : 6.3×2.3 0932 : 9.0×3.2 1145 : 11.5×4.5 1550 : 15.5×5.0 1760 : 17.5×6.0	F : ±1% G : ±2% J : ±5%	A : Ammo T : Taping Reel	E : ±100 F : ±200 I : ±500	V : 1/4W U : 1/2W T : 1W S : 2W R : 3W D : 5W	1003 : 100KΩ 1004 : 1MΩ 1006 : 100MΩ	S : Silicone E : Epoxy