

Metal Glazed Resistor



MGR Series

MERITEK

Coating-insulated megohm fixed resistors (Metal Glazed)
High Voltage Surge Resistors.

Features:

- Stable performance against high temperature and voltage.
- Good performance in enduring moisture and overload capability.
- Operating ambient temperature: -55°C to +175°C
- Lead (Pb)-free solder contacts
- Epoxy and silicone coating available for various applications.
- Resistance tolerance: 1% & 5%
- Power rating: 1/8 watt to 3 watts, ± 50 ppm/°C to ± 200 ppm/°C
- Resistance range – up to 10G ohms
- Dielectric withstanding voltage - V_{max} : 1,200V

Part Number System :

MGR S 1/4W - VALUE J TR

- Metal Glazed Resistor
- Coating (S = Silicone, E = Epoxy)
- Power Rating
- Resistance Value (e.g. 0R1, 1R, 10R, 100R, 1K, 10K, 100K, 1M, 10M)
- Resistance Tolerance (e.g J = +/-5%, F = +/-1%)
- B = Bulk; TR = Tape & Reel

Dimension :

Style (Din Size)	Dimension(mm)			
	L	D	H	d
MGR1/8W(0204)	3.3±0.5	1.8±0.3	28±2.0	0.45±0.03
MGR1/4W (0207)	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
MGR1/2WS (0207)	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
MGR1/2WS(0309)	8.5±0.5	2.7±0.5	27±2.0	0.60±0.03
MGR 1/2W (0410)	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03
MGR 1WS (0412)	9.0±0.5	4.0±0.5	26±2.0	0.65±0.03
MGR 1W (0414)	11.5±1.0	4.0±0.5	35±2.0	0.78±0.03
MGR 2WS (0416)	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03
MGR 2W (0516)	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03
MGR 3WS (0518)	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03



Appearance :

- Silicone Resin ----- Brown --- (Flame-Proof)
- Epoxy Resin ----- Light Blue

Metal Glazed Resistor



MGR Series

MERITEK

Rating :

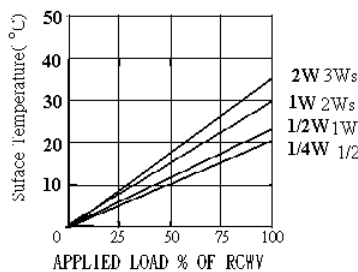
Power rating	Max. working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage		Resistance Range*	Resistance Tolerance	T.C.R.	Rating Ambient Temperature	Operating Temperature
			Silicone Resin	Epoxy Resin					
MGR1/8W(0204)	DC500V	1000V	300V	400V	100K~100M	K (±10%) E12 J (±5%) E24 F (±1%) E24 > 1G (±10%) E12	±200PPM/°C ±100PPM/°C ±50PPM/°C	70°C	-55°C ~ +175°C
MGR1/4W(0207)	DC1600V AC1150V	DC2000V AC1500V	400V	500V	100K-1G				
MGR1/2WS(0207) MGR1/2WS(0309)	DC1700V DC1800V	2500V	400V	500V	100K-1G				
MGR1/2W(0410)	DC2000V	2500V	500V	700V	100K-1G				
MGR1WS(0412)	DC2500V	3500V	500V	700V	100K-1G				
MGR1W(0414)	DC3000V	4000V	500V	1000V	100K-1G				
MGR2WS(0416)	DC3500V	4000V	500V	1000V	100K-1G				
MGR2W(0516)	DC3500V	4000V	700V	1200V	100K-1G				
MGR3WS(0518)	DC3500V	4000V	700V	1200V	100K-1G				

* Resistance range reflects standard resistance values. Other resistance values are available on request. Maximum resistance: 10G ohms

Performance :

Test Items	Test Methods	Specifications
Short time overload	Rated Voltage X 2.5 or Max. overload Voltage, whichever is lower, for 5sec.	± (1.0% + 0.05Ω)
Moisture resistance	40°C±2°C, 90%~95%RH,1000h 90 min 【ON】 30 min 【OFF】	± (5.0% + 0.05Ω)
Load life	1000hours at rated voltage, 70°C 90 min 【ON】 30 min 【OFF】	± (3.0% + 0.05Ω)
Insulation resistance	500±50V DC During 1 min V-Block method	±10,000MΩ Over
Dielectric withstanding voltage	In V-Block for 60 seconds	By Type
Resistance to soldering heat	260°C±5°C, 10s±1s or 350°C±10°C, 3.5s±0.5s	± (1.0% + 0.05Ω)
Temperature cycling	5 cycles for -25°C±3°C(30min) ; room temp.(30min) ~ +85°C±3°C(30min) room temp. (30min)	± (1.0% + 0.05Ω)
Terminal strength	Direct load for 10 sec. In the direction of the terminal leads.	Tensile: ≥ 2.5kg
Intermittent 'overload	4 times RCWV for 10000cycles(1sec.on , 25secs.off)	±(1%+0.05Ω)

surface temp.rise



POWER GRAPH

