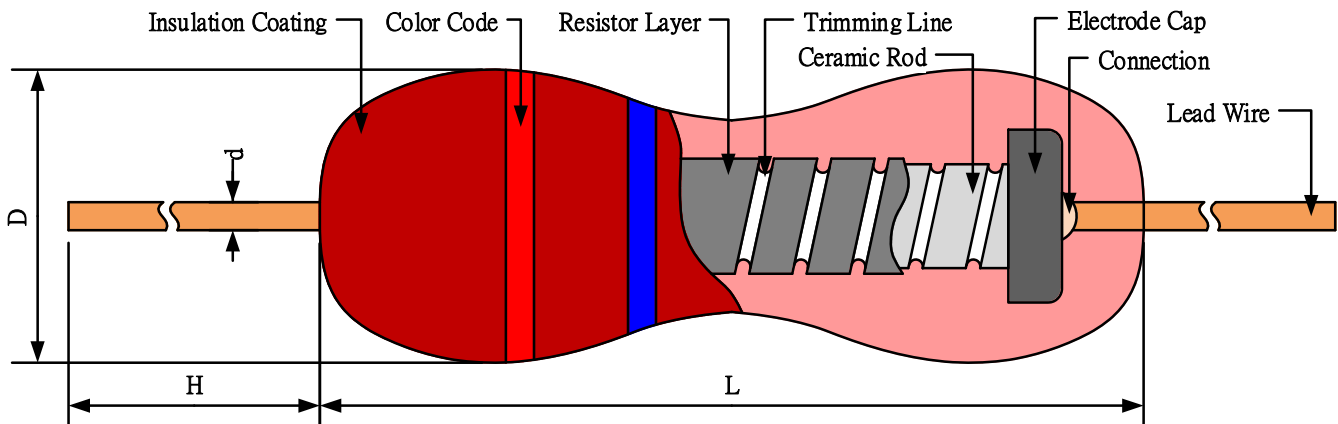


- Coat-Insulated Metal Glazed Fixed Resistors (RoHS compliant)
 - ⊙ Higher working voltage
 - ⊙ High pulse loading capability
 - ⊙ Resistance to high Temp/humidity
 - ⊙ Highly stable performance and highly reliable
 - ⊙ Operating Temperature Range -55°C ~ +225°C
 - ⊙ Flameproof Construction UL-94V0

● DIMENSIONS



STYLE		DIMENSION(mm)				Resistance Range
		L	D	H	d	
1/4W	1/2WS	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03	100K~500M
1/2W	1WS	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03	
1W	2WS	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03	
2W	3WS	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03	
3W	5WS	17.5±1.0	6.0±0.5	35±2.0	0.78±0.03	

● RATING

POWER RATING	MAX. Working VOL	MAX. Overload VOL	Dielectric Withstanding VOL.	Resistance Tolerance	T.C.R	Measured	
1/4W	DC1600V	DC2000V	400V	R > 500M K (±10%) E12 R ≤ 500M K (±10%) E12 J (±5%) E24 F (±1%) E24 100K ≤ R ≤ 33M (±0.5%) E24	Standard:	DC 100 volts 100K ≤ R < 1M DC 1000 volts 1M ≤ R	
	AC1150V	AC1500V					±200PPM/°C
1/2WS	DC1700V	2500V	400V		R > 10M		±500PPM/°C
1/2W	DC3500V	4000V	500V		Special :		
1WS	DC4000V	4500V	500V		±100PPM/°C		±50PPM/°C
1W	DC4500V	5000V	500V				
2Ws	DC5000V	10000V	500V				
2W	DC7000V	14000V	700V				
3WS	DC10000V	14000V	700V				
3W	DC12000V	16000V	1000V				
5WS	DC13000V	18000V	1000V				

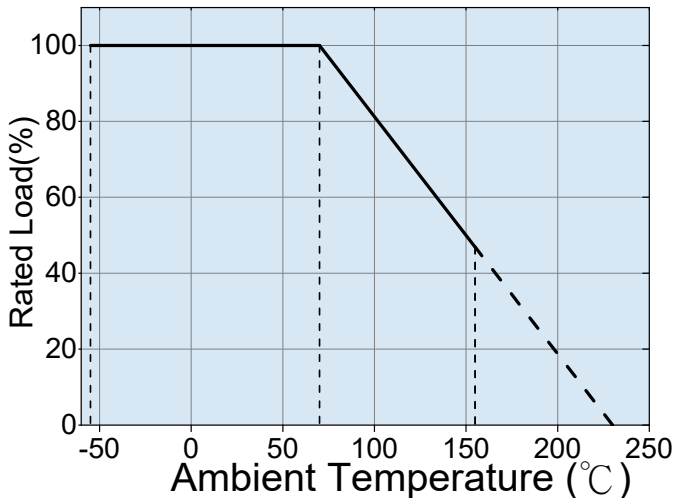
◇ Value Range for standard resistance , below or over this resistance on request. The maximum number can be produced to 1G

◇ Rated continuous Working Voltage (RCWV) = $\sqrt{\text{Power. Rating.} \times \text{Resistance. Value.}}$

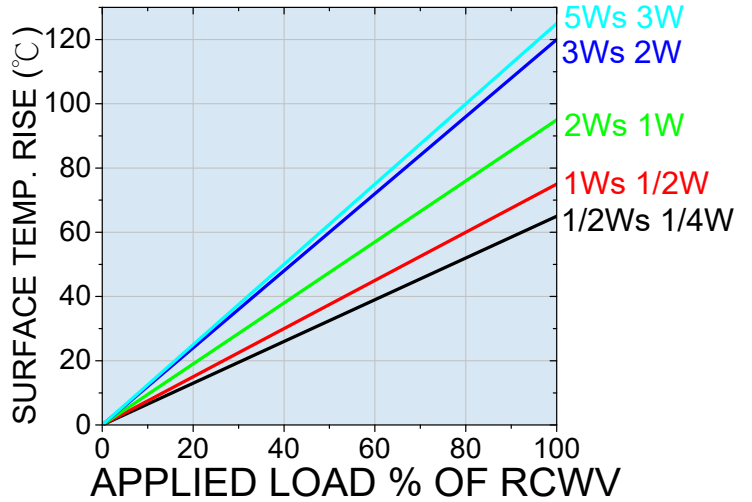
● PERFORMANCE SPECIFICATIONS

TEST ITEMS	Test Methods	SPECIFICATIONS										
Temperature Coefficient(T.C.R.)	Resistance value at room (+25°C) Temperature and room Temperature(+125°C)	By Type										
Short time overload	Rated Voltage X 2.5 or Max. Overload Vol., whichever is lower, for 5sec.	± (1.0% + 0.05Ω)										
Moisture resistance	40°C±2°C, 90%~95%RH,1000h (For Epoxy Resin) 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, 2s±1s	± (1.0% + 0.05Ω)										
Resistance to Solvent	IPA for 5±0.5 Min. with ultrasonic	No abnormality in coatings and markings.										
Terminal strength	Direct load for 10 sec. In the direction off the terminal leads.	Tensile: ≥ 2.5kg										
Anti Surge characteristics	Discharge Test : 0.01uf capacitor Discharge Pulse 10 time. (1 pulse / 5sec. max)	± (10% + 0.05 Ω)										
	<table border="1"> <tr> <td>Type</td> <td>1/4W 1/2Ws</td> <td>1/2W 1WS</td> <td>1W 2WS 2W 3WS</td> <td>3W 5WS</td> </tr> <tr> <td rowspan="3">Voltage</td> <td rowspan="3">3KV</td> <td>1K ≤ R < 10K:5KV</td> <td rowspan="3">10KV</td> <td rowspan="3">15KV</td> </tr> <tr> <td>10K ≤ R < 100K:7KV</td> </tr> <tr> <td>100K ≤ R:10KV</td> </tr> </table>		Type	1/4W 1/2Ws	1/2W 1WS	1W 2WS 2W 3WS	3W 5WS	Voltage	3KV	1K ≤ R < 10K:5KV	10KV	15KV
Type	1/4W 1/2Ws	1/2W 1WS	1W 2WS 2W 3WS	3W 5WS								
Voltage	3KV	1K ≤ R < 10K:5KV	10KV	15KV								
		10K ≤ R < 100K:7KV										
		100K ≤ R:10KV										
Intermittent overload	4 times RCWV for10000cycles(1sec.on , 25secs.off)	±(1%+0.05Ω)										

●POWER GRAPH



●HOT-SPOT TEMPERATURE



● Resistor body color

◎ Silicone Resin ----- Brown---(Flame-Proof)

MGB	1/4W	1M	J		TB
Type	Power Rating	Resistance	Tolerance	T.C.R	Packaging
MGB Silicone	1/4W 1/2WS 3W 5WS	100K 100KΩ 1M 1MΩ 100M 100MΩ 1G 1GΩ	F ± 1% G ± 2% J ± 5% K ± 10%	B 200ppm C 100ppm E 50ppm Standard	TB Taping Box TR Taping Reel F F-TYPE M M-TYPE