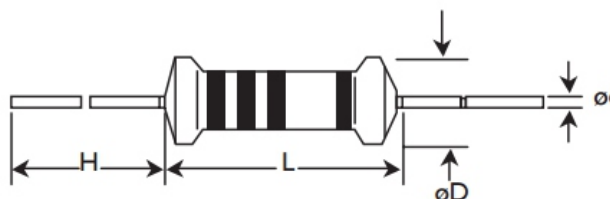


FEATURES

- High working voltage
- Resistance to high Temperature / humidity
- High pulse loading capability
- Resistance range up to 10G ohms
- Dielectric withstanding voltage up to 1,200V
- Epoxy coating meets UL-94V-0
- Operating Temperature: -55°C ~ +175°C
- Higher temperature with Silicone Resin coating also available, See MGSV Series.



DIMENSION (mm)

Size Code		Power Rating		Dimensions (m/m)				Resistance Range (Ω)
				L	D	H	d	
MGHV25	MGHV50S	1/4 W	1/2 W	6.3±0.5	2.3±0.3	28±3.0	0.55±0.03	1K Ω TO 10G Ω
MGHV50	MGHV100S	1/2 W	1 W	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	
MGHV100	MGHV200S	1 W	2 W	11.5±1.0	4.0±0.5	35±3.0	0.78±0.03	
MGHV200	MGHV300S	2 W	3 W	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	
MGHV300	MGHV500S	3 W	5 W	17.5±1.0	6.0±0.5	35±3.0	0.78±0.03	

RATINGS at ambient temperature 70°C

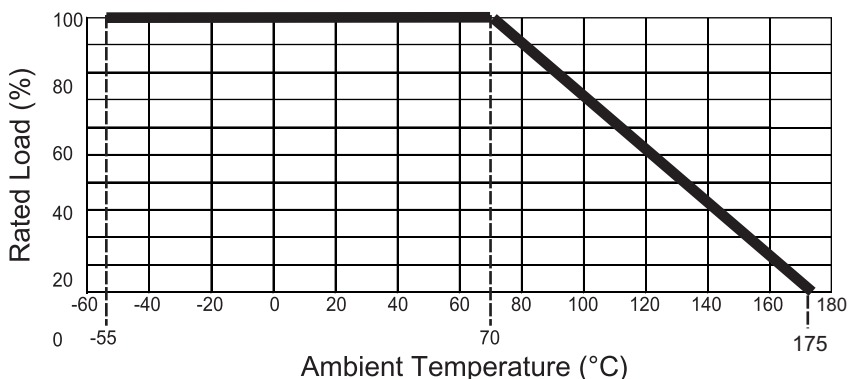
Size Code	Power Rating	Max. Working Voltage (DC)	Max. Overload Voltage (DC)	Dielectric Withstanding Voltage (V)	Resistance Tolerance	T.C.R.	Measured
MGHV25	1/4 W	1,600	2,000	500	R > 1GΩ K (±10%) E12	Standard: 1KΩ ~ 10MΩ ±200PPM/°C	DC 100 volts 1KΩ ~ 1MΩ
MGHV50S	1/2 W	1,700	2,500	500			
MGHV50	1/2 W	3,500	4,000	700	R < 1GΩ K (±10%) E12	R > 10MΩ ±500PPM/°C	-----
MGHV100S	1 W	4,000	4,500	700			
MGHV100	1 W	4,500	5,000	1,000	J (±5%) E24	-----	-----
MGHV200S	2 W	5,000	10,000	1,000			
MGHV200	2 W	7,000	14,000	1,200	F (±1%) E24	-----	DC 1000 volts R ≥ 1MΩ
MGHV300S	3 W	10,000	14,000	1,200			
MGHV300	3 W	12,000	16,000	1,200	also available 1MΩ ~ 100MΩ D (±0.5%) E24	Special: ±100PPM/°C ±50PPM/°C	
MGHV500M	5 W	13,000	18,000	1,200			

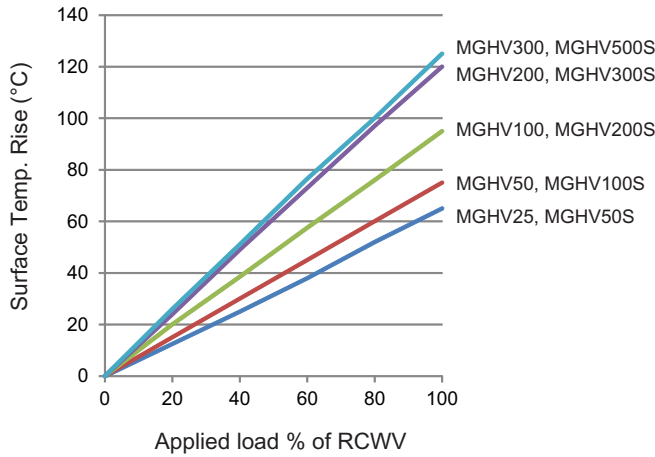
- Resistance Range for standard resistance, below or over this resistance may be available upon request

■ **PERFORMANCE**

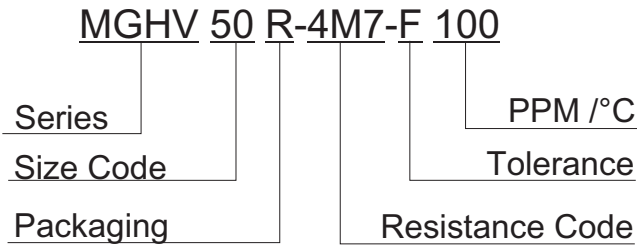
Test Items	Methods	Specifications						
Short Time Overload	Rated voltage x 2.5 or max. overload voltage, whichever is lower, for 5 seconds	± (1.0% + 0.05Ω)						
Moisture Resistance	40°C ± 2°C, 90%~95% R.H., 1000hrs 90 min [ON], 30 min [OFF]	± (5.0% + 0.05Ω)						
Load Life	1,000 hours at rated voltage, 70°C 90 min [ON], 30 min [OFF]	± (3.0% + 0.05Ω)						
Insulation Resistance	500 ± 50V DC During 1 min V-Block method	± 10,000 MΩ 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 & markings						
Terminal Strength	Direct load for 10 sec. In the direction of the terminal leads	Tensile: ≥ 2.5 Kgs						
Anti Surge Characteristics	Discharge Test: 0.01uF capacitor Discharge Pulse 10 times (1 pulse / 5 sec. max)	± (10.0% + 0.05Ω)						
	Power Rating		<table border="1"> <tr> <td>MGHV25 MGHV50S</td> <td>MGHV50, MGHV100S</td> <td>MGHV100, MGHV200S MGHV200, MGHV300S</td> <td>MGHV300 MGHV500S</td> </tr> </table>	MGHV25 MGHV50S	MGHV50, MGHV100S	MGHV100, MGHV200S MGHV200, MGHV300S	MGHV300 MGHV500S	
MGHV25 MGHV50S	MGHV50, MGHV100S	MGHV100, MGHV200S MGHV200, MGHV300S	MGHV300 MGHV500S					
Voltage	<table border="1"> <tr> <td>3KV</td> <td> <table border="1"> <tr> <td>1K ~ 10K : 5KV</td> </tr> <tr> <td>10K ~ 100K : 7KV</td> </tr> <tr> <td>R ≥ 100K : 10KV</td> </tr> </table> </td> <td>10KV</td> <td>15KV</td> </tr> </table>	3KV	<table border="1"> <tr> <td>1K ~ 10K : 5KV</td> </tr> <tr> <td>10K ~ 100K : 7KV</td> </tr> <tr> <td>R ≥ 100K : 10KV</td> </tr> </table>	1K ~ 10K : 5KV	10K ~ 100K : 7KV	R ≥ 100K : 10KV	10KV	15KV
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1K ~ 10K : 5KV								
10K ~ 100K : 7KV								
R ≥ 100K : 10KV								
Intermittent Overload	4 times RCWV for 10,000 cycles (1 sec [ON], 25sec [OFF])	± (1.0% + 0.05Ω)						

Power Derating





■ PART NUMBER EXAMPLE



■ RESISTANCE

Ohms	1K	150K	1.5Meg	10Gig
Code	1K0	150K	1M5	10G

■ PACKAGING

Code	R	A	B	C
Description	Taped & Reeled	Taped & Box	Loose (Bulk)	Cut & Form
Special Taping Suffix	T52, T63, T73			

■ HIGH VOLTAGE SURGE TEST

10 discharges from a 10nF capacitor charged to Vmax: 12 discharges/min no evidence of flash over, mechanical damage, arching or, insulation breakdown.

