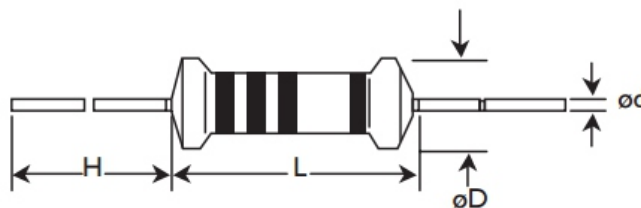


■ **FEATURES**

- High working voltage
- Resistance to high Temperature / humidity
- High pulse loading capability
- Resistance range up to 10G ohms
- Operating Temperature: -55°C ~ +225°C
- Standard Epoxy coating also available, See MGHV Series.



■ **DIMENSION (mm)**

Size Code		Power Rating		Dimensions (mm)				Resistance Range (Ω)
				L	D	H	d	
MGSV25	MGSV50S	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
MGSV50	MGSV100S	1/2 W	1 W	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	
MGSV100	MGSV200S	1 W	2 W	11.5±1.0	4.0±0.5	35±3.0	0.78±0.03	
MGSV200	MGSV300S	2 W	3 W	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	
MGSV300	MGSV500S	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**

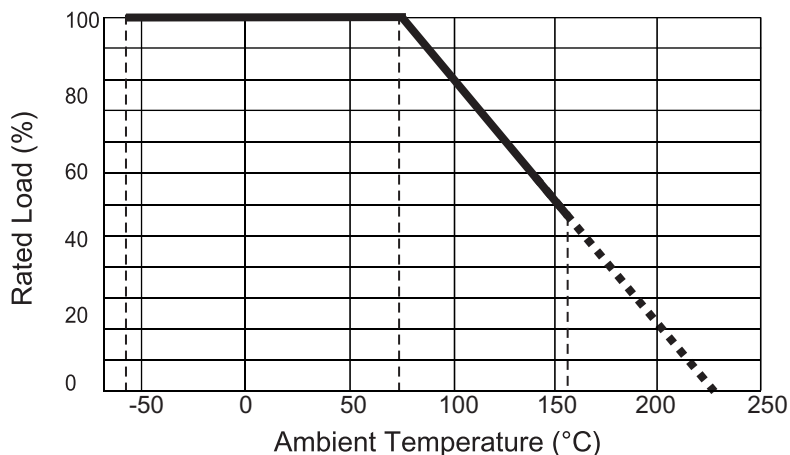
Size Code	Power Rating	Max. Working Voltage (DC)	Max. Overload Voltage (DC)	Dielectric Withstanding Voltage (V)	Resistance Tolerance	T.C.R.	Measured
MGSV25	1/4 W	1,600	2,000	400	R > 1GΩ K (±10%) E12	Standard: 1KΩ ~ 10MΩ ±200PPM°C	DC 100 volts 1KΩ ~ 1MΩ
MGSV50S	1/2 W	1,700	2,500	400			
MGSV50	1/2 W	3,500	4,000	500	R < 1GΩ K (±10%) E12 J (±5%) E24 F (±1%) E24	R > 10MΩ ±500PPM°C	
MGSV100S	1 W	4,000	4,500	500			
MGSV100	1 W	4,500	5,000	500	also available 1MΩ ~ 100MΩ D (±0.5%) E24	Special: ±100PPM°C ±50PPM°C	
MGSV200S	2 W	5,000	10,000	500			
MGSV200	2 W	7,000	14,000	700			
MGSV300S	3 W	10,000	14,000	700			
MGSV300	3 W	12,000	16,000	1,000			
MGSV500M	5 W	13,000	18,000	1,000			

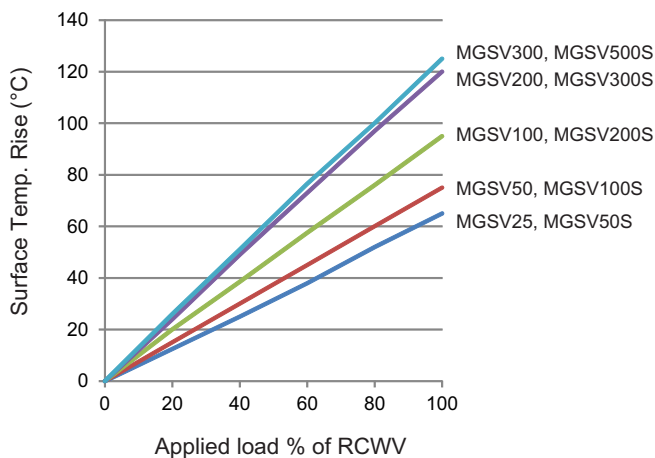
- Resistance Range for standard resistance, below or over this resistance may be available upon request

■ **PERFORMANCE**

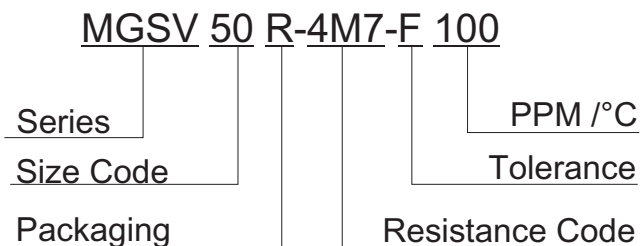
Test Items	Methods	Specifications							
Short Time Overload	Rated voltage x 2.5 or max. overload voltage, whichever is lower, for 5 seconds	± (1.0% + 0.05Ω)							
Moisture Resistance	40°C ± 2°C, 90%~95% R.H., 1000hrs (for Epoxy Coating) 90 min [ON], 30 min [OFF]	± (5.0% + 0.05Ω)							
Load Life	1,000 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-B; pcl fpr 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 off 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"> <thead> <tr> <th>MGSV25 MGSV50S</th> <th>MGSV50 MGSV100S</th> <th>MGSV100, MGSV200S MGSV200, MGSV300S</th> <th>MGSV300 MGSV500S</th> </tr> </thead> <tbody> <tr> <td>3KV</td> <td>1K ~ 10K : 5KV 10K ~ 100K : 7KV ≥ 100K : 10KV</td> <td>10KV</td> <td>15KV</td> </tr> </tbody> </table>	MGSV25 MGSV50S	MGSV50 MGSV100S	MGSV100, MGSV200S MGSV200, MGSV300S	MGSV300 MGSV500S	3KV	1K ~ 10K : 5KV 10K ~ 100K : 7KV ≥ 100K : 10KV
MGSV25 MGSV50S	MGSV50 MGSV100S	MGSV100, MGSV200S MGSV200, MGSV300S	MGSV300 MGSV500S						
3KV	1K ~ 10K : 5KV 10K ~ 100K : 7KV ≥ 100K : 10KV	10KV	15KV						
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.

