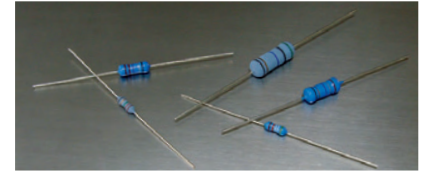


## Feature

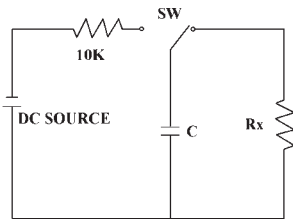
- Provide high stable performance against environment conditions & overload voltage
- Can withstand High Surge Voltage
- Width resistance range & low TCR



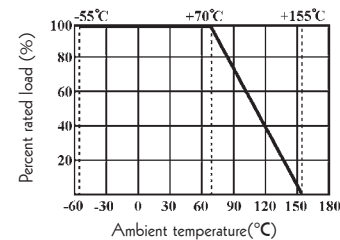
• 5 band color code for  $\pm 5\%$  tolerance, and last band Black color for identification

• Standard 5 band color code for  $\pm 1\%$  tolerance

## Surge Withstanding Voltage



## Derating Curve



Normal Size: the discharge cycle is repeated in above circuit: 2.5 seconds "ON", 2.5 seconds "OFF", 50 cycles, C=0.001uf

Small Size: the discharge cycle is repeated in above circuit: 2.5 seconds "ON", 2.5 seconds "OFF", 10 cycles, C=0.01uf

The applied DC source voltage is shown as below table

## Specification

Part No.	Type	Power Rating at 70°C	Dimension (mm)				Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Surge Withstanding Voltage	Resistance Range
			D Max.	L Max.	d $\pm 0.05$	H $\pm 3$					
<b>Normal Size</b>											
MGR 0W4	MGR 25	1/4W	2.7	7	0.54	28	500V	700V	500V	100K-100M: 10,000V	1K-100M ( $\pm 5\%$ , $\pm 10\%$ )
MGR 0W2	MGR 50	1/2W	4.0	10	0.54	28	700V	1,000V	700V		
MGR 01W	MGR-100	1W	4.7	13	0.65	28	1,000V	1,400V	700V		
MGR 02W	MGR-200	2W	6	17	0.75	28	1,000V	1,400V	700V		
MGR 03W	MGR-300	3W	7	19	0.75	28	1,000V	1,400V	700V		
<b>Small Size &amp; Ultra Small Size</b>											
MGR0U2	MGR-50-SS	1/2W	2.7	7	0.54	28	500V	700V	500V	100K-1M:3,000V 1M1-6M2:4,000V $\geq 6M8$ : 6,000V	1K-33M ( $\pm 5\%$ , $\pm 10\%$ )
MGR0S2	MGR-50-S	1/2W	3.3	9.5	0.54	28	500V	700V	500V	100K-1M:3,000V 1M1-6M2:4,000V $\geq 6M8$ : 6,000V	100K-1M ( $\pm 1\%$ )
MGR01U	MGR-100-SS	1W	4.0	10	0.54	28	700V	1,000V	700V	100K-1M:4,000V 1M1-6M2:5,000V $\geq 6M8$ : 8,000V	1K-33M ( $\pm 5\%$ , $\pm 10\%$ )
MGR01S	MGR-100-S	1W	4.7	11	0.54	28	700V	1,000V	700V		
MGR02U	MGR-200-SS	2W	4.7	13	0.65	28	1,000V	1,400V	700V		
MGR02S	MGR-200-S	2W	5.2	13	0.65	28	1,000V	1,400V	700V		
MGR03U	MGR-300-SS	3W	5.2	13	0.75	28	1,000V	1,400V	700V		
MGR03S	MGR-300-S	3W	6	17	0.75	28	1,000V	1,400V	700V	100K-1M:8,000V 1M1-6M2:9,000V $\geq 6M8$ :10,000V	

Performance Specification

Temperature coefficient	$\leq \pm 200\text{PPM}/^\circ\text{C}$
Short-time overload	$\Delta R/R \leq \pm(1\%+0.05\Omega)$ , with no evidence of mechanical damage
Dielectric withstanding voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown
Pulse overload	$\Delta R/R \leq \pm(2\%+0.05\Omega)$ , with no evidence of mechanical damage
Terminal strength	No evidence of mechanical damage
Resistance to soldering heat	$\Delta R/R \leq \pm(1\%+0.05\Omega)$ , with no evidence of mechanical damage
Solderability	Min. 95% coverage
Resistance to solvent	No deterioration of protective coating and marking
Temperature cycling	$\Delta R/R \leq \pm(1\%+0.05\Omega)$ , with no evidence of mechanical damage
Load life in humidity	$\Delta R/R \leq \pm(5\%+0.05\Omega)$ , with no evidence of mechanical damage
Load life	$\Delta R/R \leq \pm(5\%+0.05\Omega)$ , with no evidence of mechanical damage

Ordering Procedure (Example: MGR 1W 5% 27M $\Omega$  T/B-1000)

