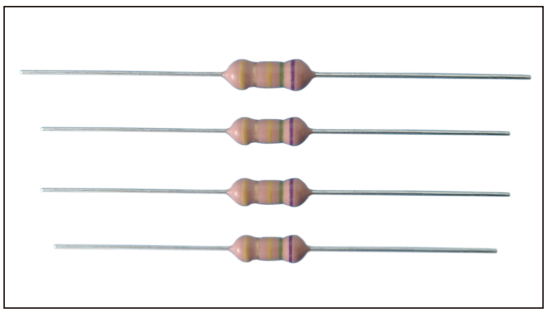
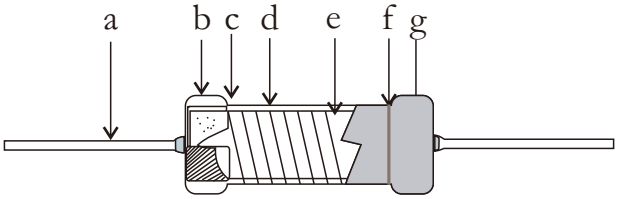


Features

Ⅰ Flameproof and insulating coating designed to assure safe usage by special non-flammable silicon-base.(Equivalent to UL94 V-0)
Ⅱ Products meet EU-RoHS requirements.

Construction

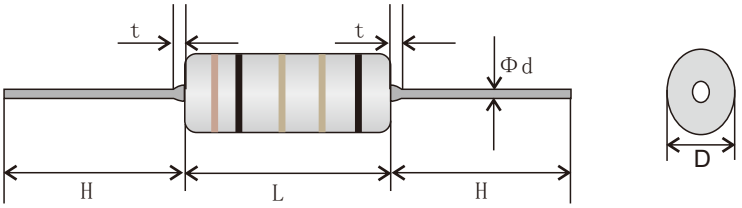


Reference Standards

JISC 5201-1

a	Lead wire
b	Cap
c	Ceramic base
d	Helical cutting groove
e	Metal glaze film
f	Marking or color code
g	Insulation coat

Dimensions



Type	Rated Power (W)	Dimensions(mm)					Weight(g) (1000pcs)
		L	t Max	D	Φd	H	
MGR1/6,MGS1/4	1/6W,1/4WS	3.3±0.3	1.5	1.8±0.2	0.45±0.05	28±2	120
MGR1/4,MGS1/2	1/4W,1/2WS	6.0±0.3	2.0	2.4±0.1	0.6±0.05	28±2	218
MGR1/2,MGS1	1/2W,1WS	9±0.5	2.5	3.3±0.5	0.6/0.8±0.05	30±3	320
MGR1,MGS2	1W,2WS	12±1.0	2.5	4.5±0.5	0.8±0.05	38±3	780
MGR2,MGS3	2W,3WS	16±1.0	2.5	5.5±0.5	0.8±0.05	38±3	1450
MGR3,MGS5	3W,5WS	17.5±1.0	2.5	6.5±0.5	0.8±0.05	38±3	1560
MGR5,MGS 6	5W,6WS	24±1.0	2.5	8.0±0.5	0.8±0.05	38±3	1700

Ordering Information

Example:

MGR	14	J	10R0	NL
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	Lead wire

(1)Type: MGR,MGS SERIES

(2)Power Rating: 16=1/6W,14=1/4W,12=1/2W,1=1W,2=2W,3=3W,05=5W,06=6W

(3)Tolerance:F=±1%,G=±2%, J=±5%

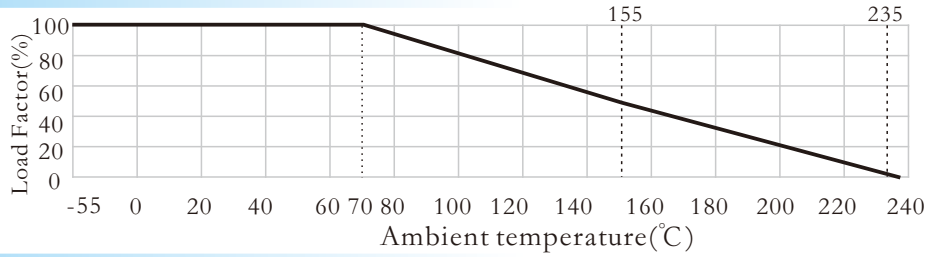
(4)Resistance Value:10R0=10R、R10=0.1Ω、47R0=47Ω

(5)Lead wire: Electro plated

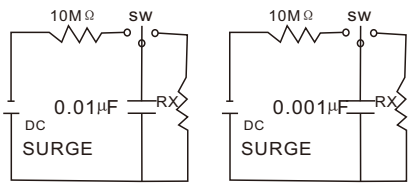
Applications And Ratings

Tpye	Rated Power (W)	Resistance Range(Ω) F±1%(E96)	Resistance Range(Ω) G±2%(E24)	Resistance Range(Ω) J±5%(E24)	Max.Working Voltage	The highest load voltage	Dielectric Withstanding Voltage	T.C.R
MGR1/6,MGS1/4	1/6W,1/4WS	0.1K~≤100M			400V	600V	300V	F±1% ±100PPM/℃ G±2% ±200PPM/℃ J±5% ±300PPM/℃
MGR1/4,MGS1/2	1/4W,1/2WS				1000V	1600V	700V	
MGR1/2,MGS1	1/2W,1WS				1500V	3500V		
MGR1,MGS2	1W,2WS				2000V	5000V		
MGR2,MGS3	2W,3WS				2500V	6000V		
MGR3,MGS5	3W,5WS				3000V	8000V		
MGR5,MGS6	5W,6WS				4000V	10000V		

Derating Curve



Performance

Test Items	Performance Requirements	Test Methods(JIS C 5201-1)
Resistance	Within specified tolerance	Measuring points are 10mm from the end cap
T.C.R.	Within specified T.C.R	Room temperature+100℃
Short time overload	±(1%+0.05Ω)	6.25times the rated power for 5 seconds
Load life	±(1.5%+0.1Ω)	Rated voltage at 70℃ for 1,000 hours 1.5hr ON/0.5hr OFF Cycles
Load life in humidity	±(5%+0.1Ω)	Rated voltage at 40℃,95%RH for 1,000 hours
Moisture resistance	±(1%+0.05Ω)	40℃,95%RH for 240 hours
Temperature cycle	±(1%+0.05Ω)	5 cycles for -25℃(30min);room temp.(30min) +85℃(30min)room temp.(30min)
Intermittent overload	±(5%+0.1Ω)	Applicable more than 100Ω;Rated voltage*3 1s ON/25s OFF,10,000 cycles
Resistance to soldering heat	±(1%+0.05Ω)	260℃±5℃for 10 seconds 350℃±10℃for 3.5 seconds
Insulation resistance	≥1000MΩ	500V insulation test 1min.
Flameproof	No obvious of flaming or arcing	AC voltage of 2,4,8,16,32 times the power rating for 1min.(V≤4times max.working voltage)
Pulse withstanding voltage	±20% 	The following discharge cycle is repeated in the circuit of the left fig. 2.5 sec.ON 2.5 sec.OFF 50 cycles.With following DC pulse test voltage. Pulse voltage:1/6W,S1/4W:(3KV).≥1/4W<100K:(3KV)//100K~620K:(5KV)〉620K:(10KV) UL-0.01μF Non-UL 0.001μF