

#### **POWER RATINGS**

Resistors shall have a power rating based on continuous full-load operation at an ambient temperature of 70°C. For temperature in excess of 70°C, the load shall be derated as shown in the figure 1.

#### **VOLTAGE RATINGS**

Resistors shall have a rated direct-current (DC) continuous working voltage or an approximate sine-wave root-mean-square (RMS) alternating-current (AC) continuous working voltage at commercial-line frequency and waveform corresponding to the power rating, as determined from the following formula: RCWV = P X R

# **DMR SELECTION GUIDE**

Where: RCWV = rated DC or RMS AC continuous working voltage at commercial-line frequency and waveform (Volt)

P = Power rating (Watt)

R = Nominal resistance (Ohm)

In no case shall the rated DC or RMS AC continuous working voltage be greater than the applicable maximum value.

#### **NOMINAL RESISTANCE**

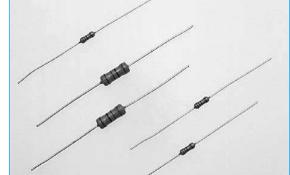
Effective figures of nominal resistance shall be in accordance with E-24 series, and resistance tolerance shall be shown by table 1.





Please note taping specification is available on page 134.

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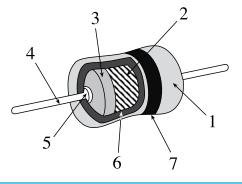


### **TABLE 1 RATINGS**

Rated Power	0.4W at 70°C	
Max. Working Voltage	200V	
Max. Overload Voltage	400V	
Rated ambient temp.	70°C	
Operating Temp. Range	-55°C to +155°C	
Resistance tolerance	± 1%	
Resistance range	10Ω to 1MΩ	

# **CONSTRUCTION**

No.	Name	Material			
1	Basic Body	Rod type ceramics			
2	Resistor	Metal Film			
3	End Cap	Steel (Tin plated Iron surface)			
4	Lead Wire	Annealed Copper wire (electrosolder plated surface)			
5	Joint	By welding			
6	Coating	Insulated resin (colour - apple green)			
7	Colour Code	Epoxy resin			



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**SECTION 4** 



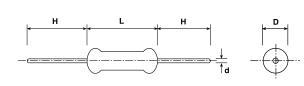
## **SPECIFICATION**

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 seconds	$\pm$ (0.25%+0.05 $\Omega$ )
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V- Block for 60 seconds	by Type
Temperature Coefficient of Resistance	JIS-C-5202 5.2	-55 ° C to 155 ° C	by Type
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>10000MΩ
Solderability	JIS-C-5202 6.5	260 $^{\circ}\text{C}$ for ±5 Seconds	95% Min. Coverage
Resistance to Solvent	JIS-C-5202 6.9	Trichloroethane for 1 Min. with Ultrasonic	No Deterioration of
			coatings & markings
Terminal Strength	Direct Load for 10 S	Direct Load for 10 Sec. in The Direction of Terminal Leads	
Pulse Overload	JIS-C-5202 5.8	4 Times RCWV 10000 Cycles (1 Sec. on, 25 Sec. off)	±(2%+0.05Ω)
Load Life in Humidity	JIS-C-5202 7.9	$40\pm2^{\circ}$ C, $90^{\sim}95\%$ RH at RCWV for 1000 hrs.	±(1.5%+0.05Ω)
		(1.5 Hrs. on, 0.5 Hrs. off)	
Load Life	JIS-C-5202 7.10	70 °C at RCWV for 1000 Hrs. (1.5 Hrs. on, 0.5 Hrs off)	±(1.5%+0.05Ω)
Temperature Cycling	JIS-C-5202 7.4	-55 °C Room Temp. 155 °C Room Temp. for 5 Cycles	±(0.25%+0.05Ω)
Resistance to Soldering Heat	JIS-C-5202 6.4	$350^{\circ}C \pm 10^{\circ}C$ for $3\pm0.5$ seconds $\pm(0.25\%+0.05\Omega)$	

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# **OUTLINE DRAWING**

L (max.)	D (max.)	d <u>+</u> 0.05	H±2	
3.3 <u>+</u> 0.4	1.8 <u>+</u> 0.3	0.5mm	28	



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