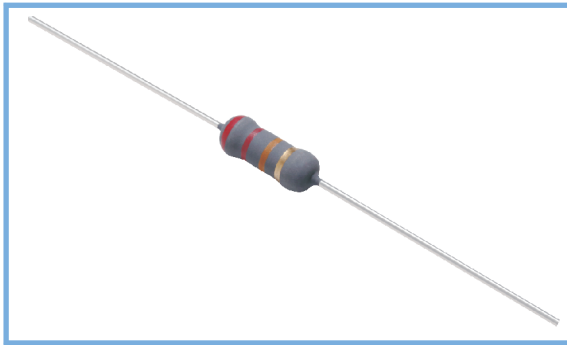


## METAL OXIDE FILM RESISTORS, FLAMEPROOF (SMALL TYPE)

### 不燃性金屬氧化皮膜電阻器(小型化)



#### Features

1. High power, Small body size.
2. Electrical and mechanical stability and high reliability.
3. Nonflame painting, "Solvent" proof, resistant to heat & humidity.
4. Annual shift is low for the strengthened metal oxide film.
5. Low noise ; can produce high resistance values which wire wound resistors can not reach.

#### 特色

1. 功率大、體積小。
2. 電氣及機械上之性能極安定，具高度信賴性。
3. 不燃性絕緣塗裝，可耐溶劑清洗及高溫。
4. 已氧化過之電阻皮膜經年變化甚少，皮膜強度特強。
5. 低雜音，可製繞線電阻器不能製作之高阻值。

## ELECTRICAL AND MECHANICAL PERFORMANCE

### 電氣及機械特性

| 特性 Characteristics                  | 規格值 Standards  | 試驗方法 Test Methods  |
|-------------------------------------|--|--|
| 阻值容許誤差 Resistance Tolerance         | $\pm 5\%$ (J) or $\pm 2\%$ (G)   | -  |
| 溫度係數 Resistance Temp. Coeff.        | $\pm 300$ ppm / °C   | -55°C ~ 155°C  |
| 額定負載 Power Rating Load              | Surface temp. 275°C Max.<br>最高表面溫度 275°C, $\Delta R/R \leq \pm 1\%$            | Rated voltage for 30 minutes<br>額定電壓 / 30分鐘                                      |
| 短時間過負載 Short Time Overload          | $\pm 2\%$  | 2.5 times of rated voltage<br>for 5 seconds.<br>2.5 倍額定電壓 / 5秒                   |
| 耐電壓 Dielectric Withstanding Voltage | No evidence of mechanical damage<br>or insulation breakdown.<br>無機械性能損壞及絕緣擊穿現象 | Max. Working Voltage for 1 min.<br>施加最高工作電壓 1 分鐘                                 |
| 絕緣電阻 Insulation Resistance          | 1,000MΩ  | DC100V or 500V megger  |
| 端子強度 Terminal Strength              | No evidence of mechanical damage.<br>無機械性能損壞現象                                 | < 1/2W : 1 kg<br>> 1W : 2.5 kg   |
| 焊錫性 Solder-ability                  | Minimum 95% coverage<br>焊錫面積 $\geq 95\%$                                       | 235 $\pm$ 5°C for 2 seconds  |
| 浸錫耐熱性 Resistance to Soldering Heat  | No evidence of mechanical damage.<br>無機械性能損壞現象, $\Delta R/R \leq \pm 1\%$      | 270 $\pm$ 5°C for 10 $\pm$ 1 seconds<br>350 $\pm$ 10°C for 3.5 $\pm$ 0.5 seconds |

## ENVIRONMENTAL CHARACTERISTICS

### 耐環境特性

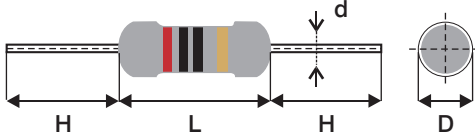
| 特性 Characteristics            | 規格值 Standards             | 試驗方法 Test Methods   |
|-------------------------------|---------------------------|---|
| 溫度週率 Temp. Cycle              | $\Delta R/R \leq \pm 1\%$ | -55°C ( 30 min.) $\rightarrow$ Room Temp.( 3 min.)<br>$\rightarrow$ +155°C( 30 min.)<br>$\rightarrow$ Room Temp.( 3 min.) / ( 5 cycles) |
| 負載壽命 Load Life                | $\Delta R/R \leq \pm 5\%$ | Rated power load 90 minutes ON<br>30 minutes OFF<br>70°C 1000 hours   |
| 耐濕壽命 Moisture-proof Load Life | $\Delta R/R \leq \pm 5\%$ | Rated power load 90 minutes ON<br>30 minutes OFF<br>40°C 95% RH 500 hours   |
| 不燃性 Nonflammability           | not flamed                | 16 times of rated wattage for 5 min.  |

※ 參考規格 Reference Standards  
IEC 60115-4  
JIS C 5201-4

## Dimensions

### 尺寸

Unit : mm



| Rated Wattage | D±1     | L±1 | H±3 | d±0.1 | Resistance (Ω) | Max. Working Voltage | Max. Overload Voltage |
|---------------|---------|-----|-----|-------|----------------|----------------------|-----------------------|
| 1/2W          | 2.6±0.5 | 6.8 | 28  | 0.6   | 0.22~33K       | 250V                 | 400V                  |
| 1W            | 3.5     | 9   | 28  | 0.65  | 0.22~50K       | 350V                 | 600V                  |
| 2W            | 4.5     | 11  | 28  | 0.8   | 0.22~50K       | 350V                 | 600V                  |
| 3W            | 5.0     | 15  | 28  | 0.8   | 0.22~50K       | 350V                 | 600V                  |
| 5W            | 8.5     | 24  | 38  | 0.8   | 0.22~100K      | 500V                 | 800V                  |
| 6W            | 8.5     | 32  | 33  | 0.8   | 0.22~150K      | 500V                 | 800V                  |
| 7W            | 8.5     | 41  | 38  | 0.8   | 0.22~200K      | 750V                 | 1000V                 |
| 10W           | 8.5     | 53  | 38  | 0.8   | 0.22~200K      | 800V                 | 1500V                 |

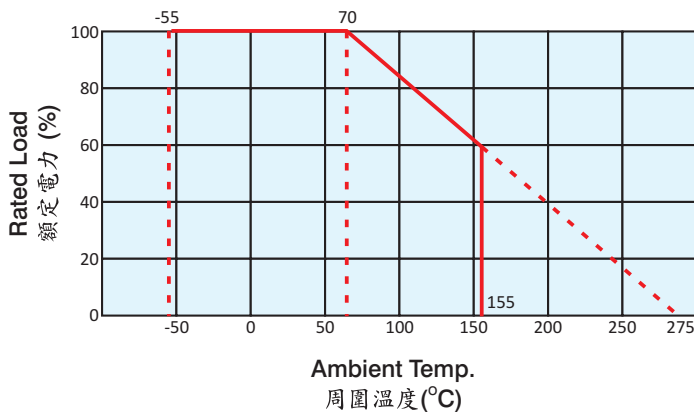
**Note:** 1. Too low or too high ohmic values can be supplied only case by case.  
 2. If high resistance values are required, we suggest using RDN series.  
 3. 0.22 ~ 9.1Ω are using alloy film.

Rate Continuous Working Voltage ( RCWV ) shall be determined  $\sqrt{\text{Rated Power} \times \text{Resistance Value}}$  or Max. Working Voltage listed above, whichever less.

## Derating Curve

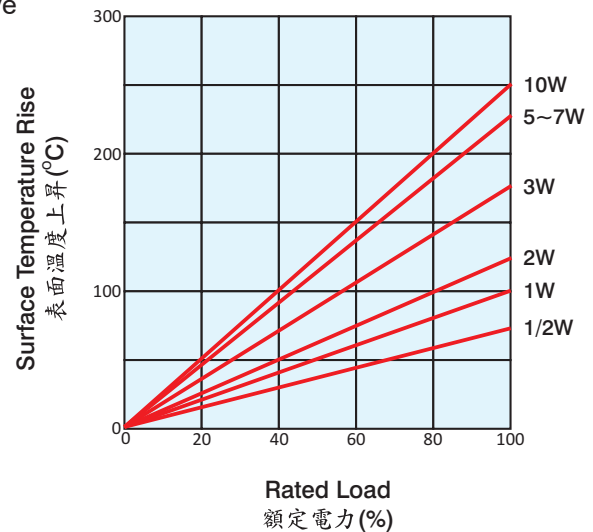
### 電力輕減曲線

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.



## Surface Temperature Rise

### 表面溫度上昇曲線



## How to order

### 訂貨方式

It is composed by Type, Rated Wattage, Nominal Resistance, Tolerance and Package. e.g.

RSS   1W   10R   J   T/B  
 a.      b.      c.      d.      e.

- a. : Type(種類): Metal Oxide Film Resistors, Flameproof (Small Type) are called "RSS".
- b. : Rated Wattage(額定電力): Shown by "W", such as 1/2W, 1W, 2W, 3W, 5W, 6W, 7W, 10W.
- c. : Nominal Resistance(公稱電阻值): 10Ω.
- d. : Tolerance(容許誤差): G = ±2%, J = ±5%.
- e. : Package (包裝方式):  
 T/R=tape & reel (捲裝); T/B=tape in box(帶裝); Nil= Bulk(散裝).

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