

POWER METAL FILM CHIP RESISTORS

電力型金屬皮膜封裝電阻器



Features

1. Flameproof UL94V0 molded package, resistant to heat, humidity & insulation.
2. Special design for automatic surface mounting.
3. Excellent mechanical strength & electrical stability.
4. Reducing assembly costs.

特色

1. 不燃性樹脂封裝成型，具高耐溫，耐濕及絕緣特性。
2. 特殊設計，專供自動表面黏著作業。
3. 高安定性及高信賴性。
4. 降低裝配費用。

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 $\pm 1\%$ (F)	-
溫度係數 Resistance Temp. Coeff.	± 100 ppm / °C	-55°C ~ 200°C
額定負載 Power Rating Load	Surface temp. 275°C Max. 最高表面溫度 275°C, $\Delta R/R \leq \pm 1\%$	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	$\pm 0.5\%$	5 times of rated wattage for 5 seconds. 5 倍額定功率 / 5秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	AC 500V for 1 minutes 施加 AC 500V 電壓 1 分鐘
絕緣電阻 Insulation Resistance	10,000MΩ	DC 500V megger
焊錫性 Solder-ability	Minimum 95% coverage 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. 無機械性能損壞現象, $\Delta R/R \leq \pm 1\%$	270 \pm 5°C for 10 \pm 1 seconds

ENVIRONMENTAL CHARACTERISTICS

耐環境特性

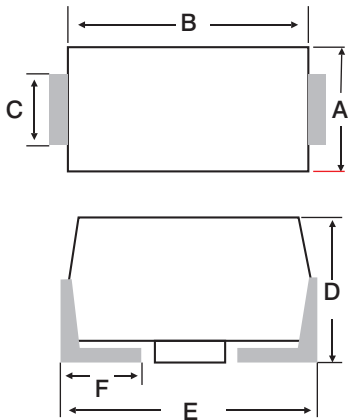
特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	$\Delta R/R \leq \pm 1\%$	-55°C (30 min.) → Room Temp. (3 min.) → +200°C (30 min.) → Room Temp. (3 min.) / (5 cycles)
負載壽命 Load Life	$\Delta R/R \leq \pm 1\%$	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	$\Delta R/R \leq \pm 1\%$	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 500 hours

※ 參考規格 Reference Standards
IEC 60115-1
JIS C 5201-1

Dimensions

尺寸

Unit : mm



Rated Wattage	A±0.3	B±0.3	C±0.3	D±0.3	E Max.	F±0.3	Resistance Range(Ω)	MAX. Working Voltage
2W	4.0	6.7	1.4	3.55	7.9	1.5	10~2M	300V
3W	5.5	10.5	1.7	5.0	12	2.3	10~2M	500V
5W	7.3	13.5	1.7	6.8	17	2.5	10~2M	500V

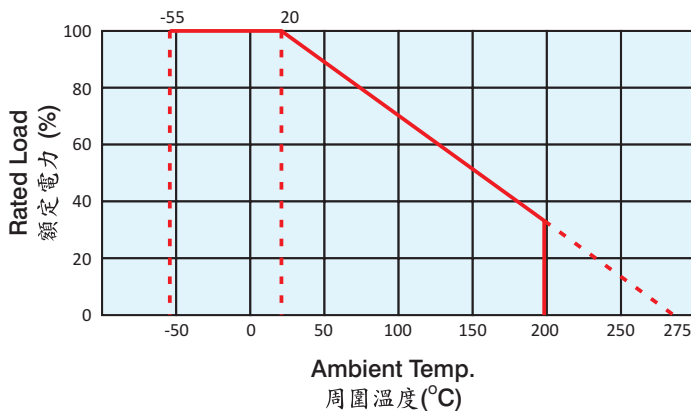
Note: 1. Max. Overload Voltage is 2 times of Max. Working Voltage
 2. Too low or too high ohmic values can be supplied only case by case.

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

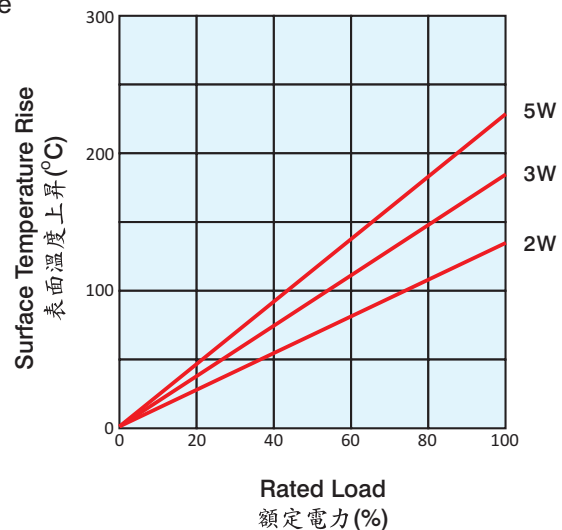
電力輕減曲線

For resistors operated in ambient temperatures above 20°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 and Tolerance.

SMF 2W 10R J
 a. b. c. d.

- a. : Type(種類): Power Metal Film Chip Resistors are called "SMF".
- b. : Rated Wattage(額定電力) : Shown by "W", such as 2W, 3W, 5W
- c. : Nominal Resistance(公稱電阻值) : 10Ω.
- d. : Tolerance(容許誤差): F = ± 1% , J = ± 5% .