

## THICK FILM CHIP RESISTORS

# 厚膜晶片電阻器



### **Features**

- 1. Miniature size can compact P.C. Board,
- 2. 8mm tape carrier packaging available for automatic surface mounting.
- 3. Excellent mechanical strength and electrical stability.
- 4. Reducing assembly costs.

### 特色

- 1. 小型化適用於高精密電子產品之小型基板。
- 2.8mm帶裝方式適用於自動表面黏著。
- 3. 具有高強度安定性和高信賴性。
- 4. 降低裝配費用。

# **ELECTRICAL AND MECHANICAL PERFORMANCE**

### 電氣及機械特性

特性 Characteristics	規格値 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	±5%(J) or ±1%(F)	-
溫度係數 Resistance Temp. Coeff.	$<10\Omega$ : $\pm400$ ppm/ °C $10\Omega$ ~1MΩ: $\pm100$ ppm/ °C $>1M\Omega$ : $\pm200$ ppm/ °C	-55°C ~ 155°C
額定負載 Power Rating Load	Surface temp 155°C Max. 最高表面溫度 155°C,△R/R≦±1%	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	±1%	2.5 times of rated voltage for 5 seconds. 2.5 倍額定電壓 / 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	Max. Overload Voltage for 1 min. 施加最高過負載電壓 1 分鐘
絶緣電阻 Insulation Resistance	1,000ΜΩ	DC 100V megger
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 ≧ 95%	245±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,△R/R≦±1%	270±5°C for 10 ±1 seconds

### **ENVIRONMENTAL CHARACTERISTICS**

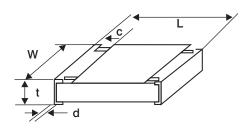
### 耐環境特件

特性 Characteristics	規格値 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	△R/R≦±0.5%	-55°C(30 min.) → Room Temp.(3 min.) → +155°C(30 min.) → Room Temp.(3 min.) / (5 cycles)
負載壽命 Load Life	△R/R≦±1%	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	△R/R≦±1%	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 500 hours

<sup>※</sup> 參考規格 Reference Standards IEC 60115-8 JIS C 5201-8



# Dimensions 尺寸



							ι	Jnit: mm
CODE Rated	Rated	Dimension(mm)				Max. Working	Resistance	
CODE	Wattage	L ± 0.2	W ± 0.2	C ± 0.2	d ± 0.2	t ± 0.1	Voltage	Range(Ω)
0402(1005)	1/16W	1.0±0.1	0.5±0.05	0.2±0.1	0.25±0.1	0.35±0.05	50V	1~10M
0603(1608)	1/10W	1.6	0.8	0.3	0.3	0.45	50V	1~10M
0805(2012)	1/8W	2.0	1.25	0.4	0.4	0.5	150V	1~10M
1206(3216)	1/4W	3.2	1.6	0.5	0.5	0.6	200V	1~10M
2010(5025)	1/2W	5.0	2.5	0.6	0.5	0.6	200V	1~10M
2512(6332)	1W	6.3	3.2	0.6	0.5	0.6	200V	1~10M

Note: 1. Max. Overload Voltag is 2 times of Max. Working Voltage

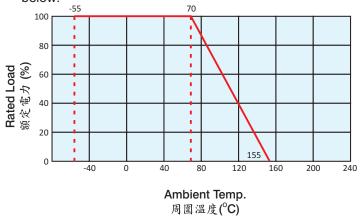
2. Zero ohm is also supplied (  $50 \text{ m}\Omega$  Max.)

3. Too low or too high ohmic values can be supplied only case by case.

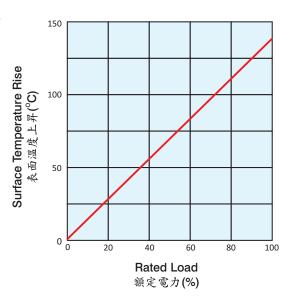
Rate Continuous Working Voltage (RCWV) shall be determined √ Rated Power X Resistance Value or Max. Working Voltage listed above, whichever less.

### **Derating Curve**

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



# **Surface Temperature Rise**



## **How to order**

### 訂貨方式

It is composed by Type, Code Number, Nominal Resistance, Tolerance, Terminal Surface Material. e.g.

RMC	0603	1K	5%	N
<u>a.</u>	b.	C.	d.	e.

a.: Type(種類): Thick Film Chip Resistors are called "RMC".

b.: Code Number(代號): There are 0402, 0603, 0805, 1206, 2010, 2512.

c.: Nominal Resistance(公稱電阻值): 1K.

d.: Tolerance(容許誤差): ±5%.

e.: Terminal Surface Material(端電極表面材質): N (RoHS Compliant)