



鼎格國際有限公司

產品目錄

< SMD series 晶片型 >

Resistors 電阻器

General 一般電阻

High Power 高功率電阻

Low Ohmic 低阻電阻

Metal Strip Type Current Sensing Resistors 超低阻金屬板電阻

High Precision 高精密度電阻

High Voltage 高壓電阻

Capacitor 電容器

General 一般電容

Safety 安規電容(X1Y2/X2Y3)

High/Medium Voltage 中/高壓電容(100V~3000V)

Diode 二極體

Schottky 蕭特基(1A~6A)(Low Vf)

Power Choke

< Leaded series 插件型 >

Resistors 電阻

Mini Ohmic 低阻電阻

Carbon Film 碳膜電阻

Wire Wound 繞線電阻

Metal Film 金屬膜電阻

Metal Oxide Film 金屬氧化皮膜電阻

Capacitor 電容

Safety 安規電容(X1Y1/X1Y2)

Ceramic Disc Capacitors 陶瓷電容

Diode 二極體

Schottky 蕭特基(1A~16A)

Power Choke

鼎格國際有限公司

Office Address: 桃園縣中壢市普義路 207-1 號 8 樓

TEL: 886-3-4631349

FAX: 886-3-4631939

SMD series 晶片型

Resistors 電阻 - General 一般電阻

Size	Power Rating at 70 °C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR : ppm / °C)	Resistance Range		Standard Resistance Values
						MIN	MAX	
0201	1/20W	25V	50V	±1%(F)	±200	10Ω	1MΩ	E-24
				±5%(J)		0Ω,1Ω	1MΩ	
0402	1/16W	50V	100V	±1%(F)	±200	10Ω	1MΩ	E-96
				±5%(J)		0Ω,1Ω	1MΩ	E-24
0603	1/10W	50V	100V	±1%(F)	±50	20Ω	510KΩ	E-96
0805	1/8W	150V	300V	±2%(F)	±100	1Ω	10MΩ	E-96
				±5%(G)	±200	1Ω	10MΩ	E-96
1206	1/4W	200V	400V	±5%(G)	±200	0Ω,1Ω	1MΩ	E-24
1210	1/3W	200V	400V	±1%(F)	±100	1Ω	10MΩ	E-96
				±5%(J)	±200	0Ω,1Ω	1MΩ	E-24
2010	1/2W	200V	400V	±1%(F)	±100	1Ω	10MΩ	E-96
				±5%(J)	±200	0Ω,1Ω	1MΩ	E-24
2512	1W	200V	400V	±1%(F)	±100	1Ω	10MΩ	E-96
				±5%(J)	±200	0Ω,1Ω	1MΩ	E-24

JUMP: ©0201,0402,0603 size maximum resistance $R_{max} < 50m\Omega$ and rated current $I_R \leq 1A$

©0805,1206,1210,2010,2512 size maximum resistance $R_{max} < 50m\Omega$ and rated current $I_R \leq 2A$

1Ω~10Ω: ©Temperature Coefficient of Resistance for 0402,0603,0805,1206 = -300 ~ +500

©Temperature Coefficient of Resistance for 2010,2512 = ±300

SMD series 晶片型

Resistors 電阻 - High Power 高功率電阻

Size	Power Rating at 70°C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR: ppm/°C)	Resistance Range	
						MIN	MAX
0603	1/8W	50V	100V	±1%(F)	±100 ⁽⁴⁾	1Ω	1MΩ
				±5%(J)	±200	0Ω,1Ω	1MΩ
0805	1/4W	150V	300V	±1%(F)	±100 ⁽⁵⁾	1Ω	1MΩ
				±5%(J)	±200	0Ω,1Ω	1MΩ
1206	1/2W	200V	400V	±1%(F)	±100	1Ω	1MΩ
				±5%(J)	±200	0Ω,1Ω	1MΩ
2010	1W	200V	400V	±1%(F)	±100	1Ω	1MΩ
				±5%(J)	±200	0Ω,1Ω	1MΩ
2512	2W	300V	600V	±1%(F)	±100	1Ω	10MΩ
				±5%(J)	±200	0Ω,1Ω	1MΩ

Note :

- (1) 2512 2W loading with total solder-pad and trace size of 300 mm²
- (2) $E = (P \times R)^{1/2}$ E : Working Voltage(V) , P : Rated Power(W) , R : Resistance Value(Ω)
- (3) Jumper(0Ω): 0603 max. resistance <20mΩ and rated current <2A
0805 max. resistance <20mΩ and rated current <4A
2512, 2010 max. resistance <20mΩ and rated current <6A
- (4) Type : FPF05 ±1%(F) (1Ω ~ 9.76Ω) -55°C T.C.R= ±150 ppm/°C
- (5) Type : FPF03 ±1%(F) (1Ω ~ 9.76Ω) -55°C T.C.R= ±200 ppm/°C

SMD series 晶片型

Resistors 電阻 - High Power 高功率電阻 (低阻值)

Size	Power Rating at 70 °C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR : ppm / °C)	Resistance Range	
						MIN	MAX
0603	1/4W	477mV	954mV	±1%(F)	±200	47mΩ	91mΩ
				±5%(J)	±150*	100mΩ	910mΩ
0805	1/3W	551mV	1102mV	±1%(F)	±200	47mΩ	91mΩ
				±5%(J)	±100	100mΩ	910mΩ
1206	1/2W	675mV	1349mV	±1%(F) ±5%(J)	±100*	47mΩ	91mΩ
2010	1W	954mV	1908mV		±100		
2512	2W	1349mV	2698mV			22mΩ	39mΩ

Note :

(*)2W loading with total solder-pad and trace size of 300 mm²

(**) $E = (P \times R) / 2$ E : Working Voltage(V) , P : Rated Power(W) , R : Resistance Value(Ω)

Resistance 47m~91mΩ Temperature 25°C~-55°C,150ppm for 2512,2010, 200ppm for 1206

Resistance 100m~910mΩ Temperature 25°C~-55°C,150ppm for 0805, 200ppm for 0603

SMD series 晶片型

Resistors 電阻 - Low Ohmic 低阻電阻

Size	Power Rating at 70 °C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR : ppm / °C)	Resistance Range		Standard Resistance Values
						MIN	MAX	
0603	1/10W	302mV	603mV	±1%(F)	±300	100mΩ	910mΩ	E24
				±5%(J)				
0805	1/8W	337mV	675mV	±1%(F)	±300	100mΩ	910mΩ	E24
				±5%(J)	±400	50mΩ	91mΩ	
1206	1/4W	477mV	954mV	±1%(F) ±5%(J)	±200	50mΩ	910mΩ	E-24
2010	1/2W	675mV	1349mV		±400	40mΩ	47mΩ	E-24
					±600	22mΩ	39mΩ	E-24
2512	1W	954mV	1908mV		±1000	10mΩ	20mΩ	E-24

超低阻金屬板電阻 (Metal Strip Type Current Sensing Resistors)

1. Features

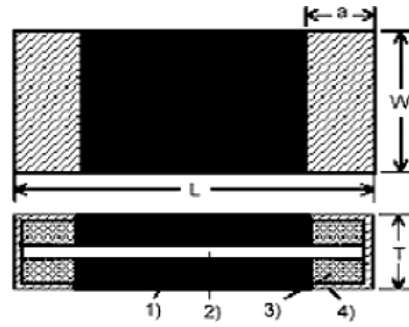
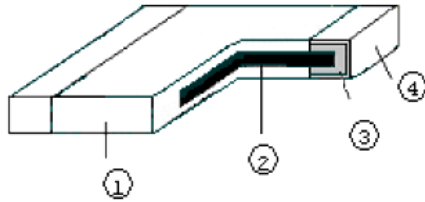
- High power rating and low TCR.
- Low resistance and high precision (1%).
- Inductance less than 1.0nH.
- Excellent reliability and suitable cost.
- Suitable for lead free soldering.
- RoHS compliant & Halogen Free



2.Applications

- Switching model power supply.
- Battery pack.
- Notebook, personal computer.
- Test Instrument.
- Power Amplifier.

3.Dimension and construction



TYPE	1.Protective Coating	2.Resistive Element	3.Terminal	4.Outer Terminal
FMF	Resin	Alloy Metal	Copper	Tin Plating

Type		L	W	T	a
Size	Range (Ω)				
RMS2512	1m,2m	6.20±0.25	3.20±0.25	0.70±0.20	2.00±0.30
RMS2512	3m~50m	6.20±0.20	3.20±0.20	0.60±0.20	0.80±0.20
RMS2010	5m~20m	5.00±0.20	2.50±0.20	0.60±0.20	0.65±0.20
RMS1206	5m~25m	3.10±0.20	1.65±0.20	0.60±0.20	0.60±0.20
RMS5931	2m,3m,5m	15.0±0.20	7.80±0.20	0.70±0.20	3.50±0.20
RMS5931	1m	15.0±0.20	7.80±0.20	1.00±0.20	3.50±0.20

4. Rating

Size	Power Rating at 70 °C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR : ppm / °C)	Resistance Range (m Ω)
2512	2 W	224 mV	448 mV	±1%(F) ±5%(J)	±100	1, 2, 3, 4
					±70	5, 6, 7, 8, 9, 10, 15, 20, 25
2512	1W	158mV	316mV	±1%(F) ±5%(J)	±100	1, 2, 3, 4
					±70	5, 6, 7, 8, 9, 10, 15, 20, 25,30, 40, 50
2010	1W	141mV	282mV	±1%(F) ±5%(J)	±70	5,10,15,20
1206	1W	141mV	282mV	±1%(F) ±5%(J)	±70	5,10,15,20,25
1206	1/2W	100mV	200mV	±1%(F) ±5%(J)	±70	5,10,15,20,25
5931	5W	158mV	354mV	±1%(F) ±5%(J)	±100	1, 2, 3,
					±70	5

SMD series 晶片型

Resistors 電阻 - High Precision 高精密度電阻

Size	Power Rating at 70 °C	Max. RCW	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR: ppm/°C)	Resistance Range	
						MIN	MAX
0402	1/16W	50V	100V	±0.1%(B)	±100	10Ω	1MΩ
				±0.5%(D)		10Ω	1MΩ
0603	1/10W	50V	100V	±0.1%(B) ±0.25%(C) ±0.5%(D)	±50	20Ω	510KΩ
0805	1/8W	150V	300V				
					±200	1Ω	10MΩ
1206	1/4W	200V	400V		±200	0Ω,1Ω	1MΩ

SMD series 晶片型

Resistors 電阻 - High Voltage 高壓電阻

Size	Power Rating at 70°C	Max. Working Voltage	Max. Overload Voltage	Resistance Tolerance	Temperature Coefficient (TCR : ppm / °C)	Resistance Range		Standard Resistance Values
						MIN	MAX	
1206	1/4W	800V	1600V	±1%(F)	±200	100KΩ	100MΩ	E-24
2010	1/2W	1500V	3000V			100KΩ	22MΩ	
2512	1W	2000V	4000V	±5%(J)				

Dissipation

- The rated power that the resistor can dissipate depends on the operating temperature
- $P_{rated} = (Working\ Voltage)^2 / resistance\ value$