

THICK FILM CHIP RESISTOR 厚膜晶片電阻器

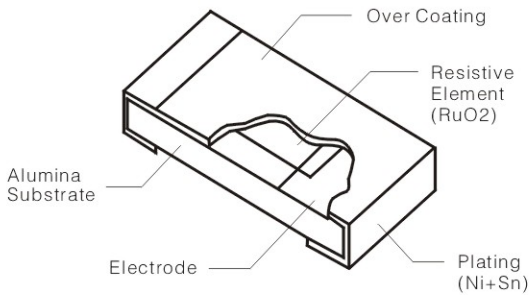
RCT

0201
0402
0603
0805
1206
1210
1218
1812
2010
2512

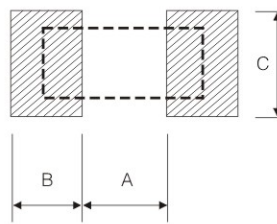
- PACKING 包裝 : TAPE ON REEL 卷帶裝
- TOLERANCE 誤差 : $\pm 1\%$, $\pm 5\%$
- RESISTANCE VALUE RANGE 阻值範圍 : 1 OHM – 100 MEG OHM



CONSTRUCTION 結構



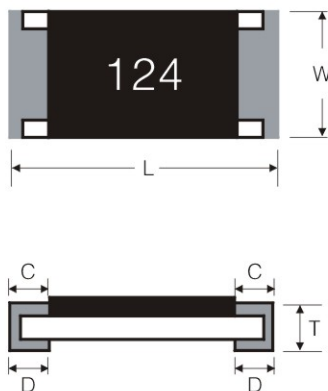
RECOMMENDED LAND PATTERN



Unit: mm

TYPE 型號	A	B	C
RCT01	0.30	0.25	0.30
RCT02	0.50	0.45	0.60
RCT03	0.90	0.60	0.90
RCT05	1.20	0.70	1.30
RCT06	2.00	0.90	1.60
RCT10	2.00	0.90	2.80
RCT20	3.80	0.90	2.80
RCT25	3.80	1.60	3.50

DIMENSIONS 尺寸



SIZE 尺寸	L	W	T	C	D
0201	0.60 ± 0.03	0.30 ± 0.03	0.23 ± 0.03	0.15 ± 0.05	0.15 ± 0.05
0402	1.00 ± 0.10	0.50 ± 0.05	0.35 ± 0.05	0.20 ± 0.10	0.25 ± 0.15
0603	1.60 ± 0.10	0.80 ± 0.10	0.45 ± 0.10	0.25 ± 0.15	0.30 ± 0.20
0805	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.35 ± 0.20	0.30 ± 0.20
1206	3.10 ± 0.10	1.60 ± 0.10	0.55 ± 0.10	0.45 ± 0.20	0.40 ± 0.25
1210	3.10 ± 0.10	2.50 ± 0.10	0.55 ± 0.10	0.45 ± 0.25	0.45 ± 0.25
1218	3.00 ± 0.10	4.60 ± 0.10	0.55 ± 0.15	0.45 ± 0.25	0.45 ± 0.25
1812	4.60 ± 0.10	3.00 ± 0.10	0.55 ± 0.10	0.55 ± 0.25	0.50 ± 0.25
2010	5.00 ± 0.20	2.50 ± 0.15	0.55 ± 0.10	0.60 ± 0.25	0.50 ± 0.25
2512	6.35 ± 0.20	3.10 ± 0.15	0.55 ± 0.10	0.60 ± 0.25	0.60 ± 0.25

SPECIFICATIONS 規格

TYPE 型號	RCT01	RCT02	RCT03	RCT05	RCT06	RCT10	RCT12	RCT18	RCT20	RCT25
SIZE 尺寸	0201	0402	0603	0805	1206	1210	1218	1812	2010	2512
POWER RATING AT 70°C 額定功率	1/20W	1/16W	1/10W	1/8W	1/4W	1/3W	1W	1/2W	1/2W	1W
MAX RCWV 最高使用電壓	15V	50V	50V	150V	200V	200V	200V	200V	200V	200V
MAX OVERLOAD VOLTAGE 最高負荷電壓	30V	100V	100V	300V	400V	400V	400V	400V	400V	400V
JUMPER < 50mΩ 最高使用電流	0.5A	1A	1A	1A	2A	2A	2A	2A	2A	2A
OPERATING TEMPERATURE RANGE 使用溫度範圍	-55 ~ +125°C									
STANDARD VALUE RANGE 阻值範圍	0Ω	0 ~ 50mΩ								
	±1% (E-96)	10Ω ~ 2.2MΩ			10Ω ~ 2.2MΩ					
	±5% (E-24)	1Ω ~ 3.3MΩ			1Ω ~ 22MΩ					

Remarks : Non-standard resistance values, high precision tolerances and low TCR items are available upon request.
不常規阻值、高精度誤差和低TCR產品亦可提供。

ELECTRICAL CHARACTERISTICS 電器特性

ALL MEASUREMENTS ARE TAKEN AT 25°C AT 1KHZ AND 65% RELATIVE HUMIDITY, UNLESS OTHERWISE STATED
所有測試必須在環境溫度25°C及濕度65%的條件下進行

PERFORMANCE TEST 性能測試	1%	5%	TEST METHOD 測試方法
TEMPERATURE CYCLING 高低温試驗	± (0.5%+0.05 Ω)	± (1%+0.05 Ω)	MIL-STD-202F, Method 107 Cycle between -55°C and +125°C for 5 cycles
SHORT TIME OVERLOAD 短時間過負荷	± (1%+0.05 Ω)	± (2%+0.1 Ω)	MIL-R-55342D, Para 4.7.5 Apply rated voltage 2.5 times for 5 seconds
RESISTANCE TO SOLDERING HEAT 耐焊性	± (1%+0.05 Ω)	± (1%+0.05 Ω)	JIS C 5202 6.4 / IEC 60115-14.18 Unmounted chip with a solder bath, 270°C ± 5°C, 10 ± 1 sec
LOADING LIFE IN MOISTURE 恒溫恒濕壽命試驗	± (0.5%+0.05 Ω)	± (2%+0.05 Ω)	MIL-STD-202F, Method 106E 40°C, 1000hrs at RCWV, 1.5hrs on, 0.5hr off
LOAD LIFE 耐久性	± (1%+0.05 Ω)	± (3%+0.1 Ω)	MIL-STD-202F, Method 108A 70°C, 100hrs at RCWV, 1.5hrs on, 0.5hr off
SOLDERABILITY 焊錫性	Coverage ≥ 95%	Coverage ≥ 95%	JIS C 5202 6.5 / IEC 60115-14.17 Termination Sn base (lead free); Unmounted chip completely immersed in a lead free solder bath, 245°C ± 5°C, 3 ± 1 sec
BENDING STRENGTH 彎曲強度	± (1%+0.05 Ω)	± (1%+0.05 Ω)	JIS C 5202 6.1.4 / IEC 60115-14.33 Resistors mounted on a 90mm glass epoxy resin PCB (FR4), bending once 3mm for 10sec, 5mm for WR04, WR02 Pulling test: > 500 grams

Marking 阻值表示



1.1. ± 5% (IECE - 24 Series) 0603, 0805, 1206 and bigger sizes (0402 no marking) are with 3-digit marking.
± 5% (IECE-24系列) 0603、0805、1206及以上規格(0402無字碼)均用三字碼表示。

e.g. 6R8=6.8Ω; 100=10×10⁰=10Ω; 472=47×10²=4700Ω=4.7KΩ

1.2. ± 1%

a. 0805, 1206 and bigger sizes are with 4-digit marking.

0805、1206及以上規格阻值均用四字碼表示。

e.g. 82R5=82.5Ω; 1000=100×10⁰=100Ω; 2212=221×10²=22100Ω=22.1KΩ。

b. 0603±1% (IECE - 96 Series) are with 3-digit marking. The first 2 digits are the value code; the final character denotes the multiplier of 10n.

0603±1% (IECE-96系列)阻值均採用三字碼表示。前兩位為阻值的數字代碼；後一位為英文大寫字母，表示倍率(10n次幂)。

E-96 Series - Value marking codes are as below table:

E-96系列阻值的數字代碼如下表：

Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼	Value 阻值	Code 代碼
100	01	133	13	178	25	237	37	316	49	422	61	562	73	750	85
102	02	137	14	182	26	243	38	324	50	432	62	576	74	768	86
105	03	140	15	187	27	249	39	332	51	442	63	590	75	787	87
107	04	143	16	191	28	255	40	340	52	453	64	604	76	806	88
110	05	147	17	196	29	261	41	348	53	464	65	619	77	825	89
113	06	150	18	200	30	267	42	357	54	475	66	634	78	845	90
115	07	154	19	205	31	274	43	365	55	487	67	649	79	866	91
118	08	158	20	210	32	280	44	374	56	499	68	665	80	887	92
121	09	162	21	215	33	287	45	383	57	511	69	681	81	909	93
124	10	165	22	221	34	294	46	392	58	523	70	698	82	931	94
127	11	169	23	226	35	301	47	402	59	536	71	715	83	953	95
130	12	174	24	232	36	309	48	412	60	549	72	732	84	976	96

倍率字母代碼如下表：

Code	A	B	C	D	E	F	G	X	Y	Z
Multiplier	10 ⁰	10 ¹	10 ²	10 ³	10 ⁴	10 ⁶	10 ⁶	10 ⁻¹	10 ⁻²	10 ⁻³

For example 例如：01Y=100×10⁻²=1Ω; 68A=499×10⁰=499Ω; 02D=102×10³=102KΩ

Markings of +/- 1% and +/- 5% tolerance are the same in the E-24 Series (but not in the E-96 Series), product label shows the tolerance.

E-24系列阻值容差為+/-1%，且不在E-96系列中，則字碼表示與E-24系列+/-5%字碼相同，僅用標籤注明容差。

For example 例如：120=12×10⁰=12Ω; 475=47×10⁵=4.7MΩ。

1.3. "0" denotes 0 Ohm value resistors.

"0"歐姆晶片電阻字碼均用一個"0"表示。



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[0805W8F931KT5E](#) [1206W4F5231T5E](#) [1210W2J0620T5E](#) [201007J0822T4E](#) [0201WMF1005TCE](#) [0201WMF1212TCE](#) [0201WMF1373TCE](#)
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