

特点

- 体积小、重量轻
- 适应再流焊与波峰焊
- 电性能稳定，可靠性高
- 装配成本低，并与自动装贴设备匹配
- 机械强度高、高频特性优越
- 符合RoHS指令要求

FEATURES

- Miniature and light weight.
- Suit for reflow and wave flow solder.
- Stable electrical capability, high reliability.
- Low assembly cost, suit for automatic SMT equipment.
- Superior mechanical and frequency characteristics.
- RoHS compliant.

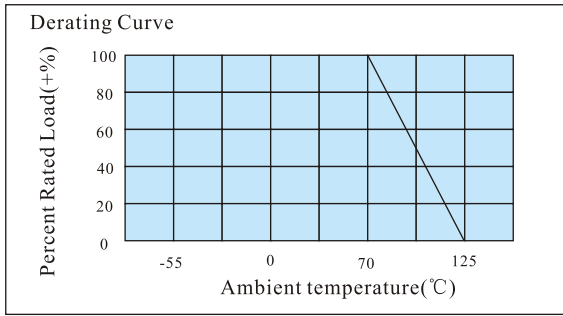
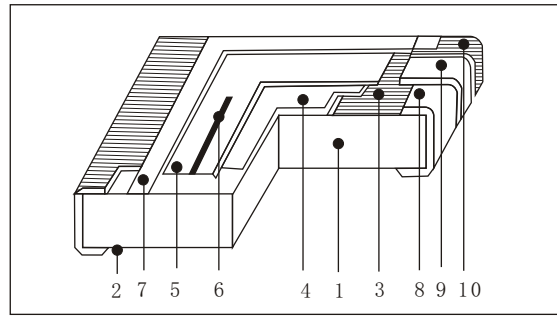

TYPE DESIGNATION 品名构成

例 Example RI 0603 K 1003 F T L

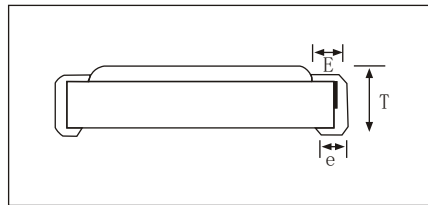
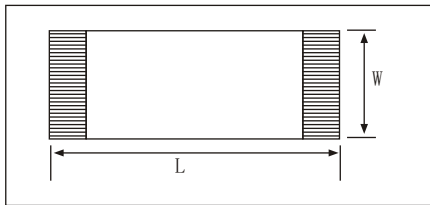
① ② ③ ④ ⑤ ⑥ ⑦

① 产品代号 Product Code		② 型号代码 Type Code		③ 电阻温度系数代号 Resistance Temperature Coefficient Code		
厚膜片式固定电阻器 Thick film chip fixed resistor		代号 Code	型号 Type	代号 Code	型号 Type	T.C.R
		01	0201	0201	W	±200ppm/°C
		02	0402	0402	U	±400ppm/°C
		03	0603	0603.0805	K	±100ppm/°C
		05	0805	1206.1210	L	±250ppm/°C
		06	1206	2512.2010		
		1210	1210			
		10	2010			
		12	2512			

④ 电阻值代号 Resistance Value Code		⑤ 电阻值误差精度代号 Resistance Tolerance Code		⑥ 包装方式代号 Packing Style Code		⑦ 无铅化等级代号 Lead-free Level Code	
三位数 (E-24系列) 前两位表示有效数字, 第三位表示有效数字后零的个数 Three digits (E-24 series): The first two digits are significant figures and the third one denotes number of zeros. 四位数 (E-96系列): 前三位表示有效数字, 第四位表示有效数字后零的个数 Four digits (E-96 series): The first three digits are significant figures and the third one denotes number of zeros. “000”表示跨接电阻 Jumper is expressed by “000”. 小数点用R表示 Decimal point should be expressed by “R”. 例如 Example: 103=10KΩ (E-24) 1003=100KΩ (E-96) 1R0=1.0Ω		代号 Code	误差精度 Tolerance	代号 Code	包装方式 Packing Style	代号 Code	无铅化等级 Lead-free Level
		D	±0.5%	T	编带包装 Tape & Reel	无表示 No Marking	端子无铅 (端子铅含量 ≤100ppm) Terminal Lead-free (pb content in terminal ≤100ppm)
		F	±1%	B	塑料盒包装 Bulk Case		
		G	±2%	C	塑料袋散装 Case		
		J	±5%			L	整体低铅 (≤1000ppm) Low lead (pb content in resistor body ≤1000ppm)
		K	±10%			G	整体无铅 (≤100ppm) Low lead (pb content in resistor body ≤100ppm)

◎ POWER RATING 额定功率

◎ CONSTRUCTION AND DIMENSIONS 结构及规格


1	陶瓷基底: Ceramic substrate	2	外部终止: Outer termination(Ag)	3	Linner 终止: Linner termination(Ag)
4	电阻层: Resistor layer	5	玻璃层: Glass layer	6	整缘削减: Trimming cut
7	外套保护: Protective coat	8	Inner 电极: Inner electrode	9	中级电极: Secondary electrode(Ni)
10	外部电极: External electrode (Sn90%,Pb10%)(Lead free available)				

◎ DIMENSIONS 尺寸


Unit: mm

Type	L	W	T	E	e
0402	1.00±0.05	0.05±0.05	0.35±0.05	0.20±0.10	0.20±0.10
0603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20
0805	2.00±0.10	1.25±0.10	0.55±0.10	0.40±0.20	0.40±0.20
1206	3.20±0.15	1.60±0.15	0.55±0.10	0.50±0.25	0.50±0.25
1210	3.20±0.15	2.50±0.15	0.55±0.15	0.50±0.25	0.50±0.25
2010	5.00±0.15	2.50±0.15	0.55±0.15	0.60±0.25	0.60±0.25
2512	6.30±0.15	3.20±0.15	0.55±0.15	0.60±0.25	0.60±0.25

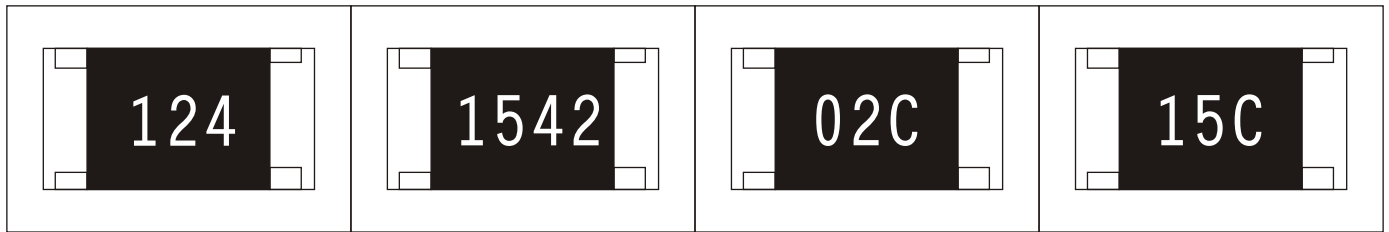
◎ STANDARD RESISTANCE SERIES 标准电阻系列

E-24允差±5%

1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.7	3.0
3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1

E-96允差±1%

1.00	1.02	1.05	1.07	1.10	1.13	1.15	1.18	1.21	1.24	1.27	1.30
1.33	1.37	1.40	1.43	1.47	1.50	1.54	1.58	1.62	1.65	1.69	1.74
1.78	1.82	1.87	1.91	1.96	2.00	2.05	2.10	2.15	2.21	2.26	2.32
2.37	2.43	2.49	2.55	2.61	2.67	2.74	2.80	2.87	2.94	3.01	3.09
3.16	3.24	3.32	3.40	3.48	3.57	3.65	3.74	3.83	3.92	4.02	4.12
4.22	4.32	4.42	4.53	4.64	4.75	4.87	4.99	5.11	5.23	5.36	5.49
5.62	5.76	5.90	6.04	6.19	6.34	6.49	6.65	6.81	6.98	7.15	7.32
7.50	7.68	7.87	8.06	8.25	8.45	8.66	8.87	9.09	9.31	9.53	9.76

◎ CHIP RESISTOR R VALUE DESC 薄片电阻的价值


3 digit marking	4 digit marking	(ONLY FOR Cr0603)	3 digit marking
for E24(J)	for E96(F)		for E96(F)
1R0~1Ω	22R1~22.1Ω		02C
122~1.2KΩ	1020~102Ω		102×102=10.2KΩ
473~47KΩ	1542~15.4KΩ		15E
105~1MΩ			140×104=1.4MΩ
*0402 NO Marking			

E-96系列0603型号 ≤ 公称阻值代号对照表 ≥ 及 ≤ 乘数代码对照表 ≥ 引用IEC标准 E-96 SERIES0603

代号	A	B	C	D	E	F	G	H	X	Y	Z
乘数	10 ⁰	10 ¹	10 ²	10 ³	10 ⁴	10 ⁵	10 ⁶	10 ⁷	10 ⁻¹	10 ⁻²	10 ⁻³

代号 CODE	E-96阻值 RESISTANCE	代号 CODE	E-96阻值 RESISTANCE	代号 CODE	E-96阻值 RESISTANCE	代号 CODE	E-96阻值 RESISTANCE
01	100	25	178	49	316	73	562
02	102	26	182	50	324	74	567
03	105	24	187	51	332	75	590
04	107	28	191	52	346	76	604
05	110	29	196	53	340	77	619
06	113	30	200	54	357	78	634
07	115	31	205	55	365	79	649
08	118	32	210	56	374	80	665
09	121	33	215	57	383	81	681
10	124	34	221	58	392	82	698
11	127	35	226	59	402	83	715
12	130	36	232	60	412	84	732
13	133	37	237	61	422	85	750
14	137	38	243	62	432	86	768
15	140	39	249	63	442	87	787
16	143	40	255	64	453	88	806
17	147	41	261	65	464	89	825
18	150	42	267	66	475	90	845
19	154	43	274	67	487	91	865
20	158	44	280	68	498	92	887
21	162	45	287	69	511	93	909
22	165	46	294	70	523	94	931
23	169	47	301	71	536	95	953
24	174	48	309	72	549	96	976

◎ TECHNICAL REQUIREMENTS 技术条件码

型号 Type	额定功率 Power Rating at 70°C	使用极限 电压 Max.working Voltage(v)	最大工作电压 Max.Overload Voltage	阻值范围 Resistance Range(1%)	阻值范围 Resistance Range(5%)	温度系数 Thermal Coefficient (PPM)	电阻最大流量 ZERO RESISTOR MAX CURRENT
RI0402	1/16W	25V	50V	100≤R≤2.2M	100≤R≤2.2M 1.0≤R<10	±100 ±200 +500~-250	0.63
RI0603	1/10W	50V	100V	10≤R≤10M	1.0≤R<10M	±100 ±200	1
RI0805	1/8W	150V	300V	10≤R≤10M	1.0≤R<10M	±100 ±200	1.5
RI1206	1/4W	200V	300V	10≤R≤10M	1.0≤R<10M	±100 ±200	1.9
RI1210	1/2W	200V	400V	10≤R≤10M	1.0≤R<10M	±100 ±200	2.2
RI2010	3/4W	200V	400V	10≤R≤10M	1.0≤R<10M	±100 ±200	3
RI2512	1W	200V	400V	10≤R≤10M	1.0≤R<10M	±100 ±200	3

*ZERO OHM JUMPER<0.05OHM

◎ ENVIRONMENTAL CHARACTERISTICS 环境特性

PERFORMANCE TEST 性能测验	TEST METHOD测试方法	1%TOL	5%TOL
Temperature Coefficient 温度系数	MIL-STD-202F,Method304	by Type	by Type
Thermal Shock	MIL-STD-202F,Method107	±(0.5%+0.05 Ω)	±(1%+0.05 Ω)
低温操作 Low Temperature Operation	MIL-R-55342D,para.4.7.5	±(0.5%+0.05 Ω)	±(1%+0.05 Ω)
时间阻值 Short Time Overload	MIL-R-55342D,para.4.7.5	±(0.5%+0.05 Ω)	±(1%+0.05 Ω)
绝缘电阻 Insulation Resistance	MIL-STD-202F,Method302	1000 Ω	1000 Ω
耐电压 Dielectric Withstand Voltage	MIL-STD-202F,Method301	by Type	by Type
耐焊性 Resistance to Soldering Heat	MIL-STD-202F,Method301C	±(0.5%+0.05 Ω)	±(1%+0.05 Ω)
湿热 Moisture Resistance	MIL-STD-202F,Method106F	±(0.5%+0.05 Ω)	±(2%+0.05 Ω)
耐久性 Life	MIL-STD-202F,Method108A	±(1%+0.05 Ω)	±(3%+0.05 Ω)
可焊性 Solderability	MIL-STD-202F,Method208G	95%min.coverage	95%min.coverage
端面镀层的结合强度 Bending Strength	JIS-C-5202,Para.6.1.4 Unit Mounted in Center of 90mm Board Length Deflected 5mm in Either Direction for 5 Seconds	±(1%+0.05 Ω)	±(1%+0.05 Ω)