

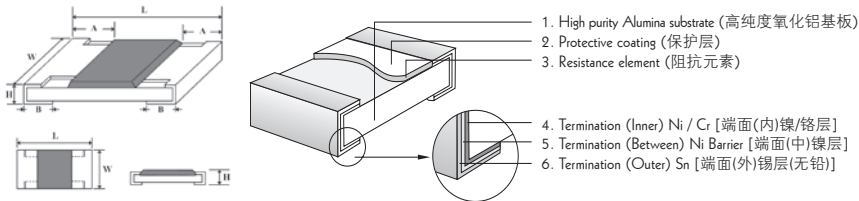
Feature (特性)

- Thin film NiCr Resistance element 薄膜镍铬阻抗元件
- Very tight tolerance from 精密的公差从 $\pm 0.10\%$, $\pm 0.25\%$
- Extremely low TCR from 极低的 TCR 从 $\pm 5 \sim \pm 50 \text{ PPM}/^\circ\text{C}$
- Totally Lead-free 完全无铅产品

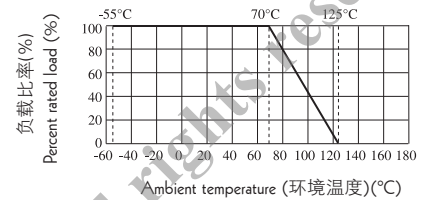
Application (应用)

- Medical Equipment 医疗器材
- Testing / Measurement Equipment 检测仪器
- Communication Device, Cell Phone, GPS, PDA. 通讯用具, 手机, GPS, PDA
- Automatic equipment controller 自动化设备控制器
- Printer Equipment 打印器材
- Converters 变频器

Figures (型状)



Derating Curve (降功率曲线)



Type 类型	L (mm)	W (mm)	H (mm)	A (mm)	B (mm)
TC02	1.00 $\pm$ 0.10	0.50 $\pm$ 0.05	0.35 $\pm$ 0.05	0.20 $\pm$ 0.10	0.25 $\pm$ 0.10
TC03	1.60 $\pm$ 0.10	0.80 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	0.45 $\pm$ 0.10	0.30 $\pm$ 0.20	0.30 $\pm$ 0.20
TC05	2.00 $\pm$ 0.15	1.25 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	0.55 $\pm$ 0.10	0.40 $\pm$ 0.20	0.40 $\pm$ 0.20
TC06	3.10 $\pm$ 0.15	1.55 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	0.55 $\pm$ 0.10	0.45 $\pm$ 0.20	0.45 $\pm$ 0.20
TC10	5.00 $\pm$ 0.10	2.50 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	0.55 $\pm$ 0.10	0.60 $\pm$ 0.25	0.50 $\pm$ 0.20
TC12	6.35 $\pm$ 0.10	3.20 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	0.55 $\pm$ 0.10	0.60 $\pm$ 0.25	0.50 $\pm$ 0.20

Ordering Procedure (Example: Thin Film TC06 1/8W 0.1% 25PPM 1K Ω T/R-5000)订购方式(例如: 薄膜TC06 1/8W 0.1% 25PPM 1K Ω T/R-5000)

T C 0 6 2 5 B 1 0 0 1 T 5 E

Product Type (产品类型):
Fill-in 4 digits with the Chip resistor type as follow (填四位数字表示产品类型):
TC02, TC03, TC05, TC06, TC10, TC12

Temperature coefficient (温度系数):
Fill-in 2 digits with the codes as following (用下列代码填二位数字):
05 = 5PPM
10 = 10PPM
15 = 15PPM
25 = 25PPM
50 = 50PPM

Resistance Value (阻值):
 $\leq 1\%$ (E-24 & E-96 series)
the 1st to 3rd digits are for the significant figures of the resistance and the 4th indicate the numbers of zeros following.
 $\leq 1\%$ 产品 (E-24, E-96 系列阻值):
第 1-3 位数表示阻值的有效数, 第 4 位数表示有几个 0

Packing Qty. (包装数量):
4 = 4,000pcs,
5 = 5,000pcs
C = 10,000pcs
D = 20,000pcs
E = 15,000pcs

Special Feature (特征):
E = Lead Free (standard)
(无铅标准品)

Tolerance (公差):
B = $\pm 0.1\%$
C = $\pm 0.25\%$
D = $\pm 0.5\%$
F = $\pm 1\%$

Packing Type (包装类型):
T = T/R
(编带 / 卷带)
B = Bulk in Poly bag
(散装 / 袋装)
C = Bulk in cassette
(散装 / 盒装)

Performance Specification (性能)

Short-time overload	短时间过负荷	$\Delta R \leq \pm 0.5\%$
Insulation Resistance	绝缘电阻	$\geq 1000M\Omega$
Load life	负载寿命	$\Delta R \leq \pm 0.2\%$ $> 7K\Omega$ $\Delta R \leq \pm 0.5\%$
Humidity (Steady State)	恒定湿热	$\Delta R \leq \pm 0.3\%$
Terminal bending	端子弯曲	$\Delta R \leq \pm 0.2\%$
Solderability	可焊性	Min 95% coverage (最少 95% 覆盖率)
Soldering heat	耐焊接热	$\Delta R \leq \pm 0.2\%$

Characteristics (特性)

Type 类型	Power Rating 功率 at 70°C	Operating Temperature 工作温度范围	Max. Working Voltage 最大工作电压	Max. Overload Voltage 最大过负荷电压	Resistance Tolerance 阻值公差	Resistance Range 阻值范围	TCR 温度系数 (PPM/°C)
TC02	1/16W	-55~+125°C	25V	50V	$\pm 0.10\%$	100Ω ~ 2KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 12KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	10Ω ~ 332KΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	10Ω ~ 332KΩ	$\pm 50\text{ppm}$
TC03	1/16W	-55~+125°C	50V	100V	$\pm 0.10\%$	100Ω ~ 4KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 50KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	10Ω ~ 1MΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	10Ω ~ 1MΩ	$\pm 50\text{ppm}$
TC05	1/10W	-55~+125°C	100V	200V	$\pm 0.10\%$	100Ω ~ 10KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 100KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	4.7Ω ~ 1MΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	4.7Ω ~ 1MΩ	$\pm 50\text{ppm}$
TC06	1/8W	-55~+125°C	150V	300V	$\pm 0.10\%$	100Ω ~ 15KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 200KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	4.7Ω ~ 1MΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	4.7Ω ~ 1MΩ	$\pm 50\text{ppm}$
TC10	1/4W	-55~+125°C	150V	300V	$\pm 0.10\%$	100Ω ~ 25KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 200KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	4.7Ω ~ 1MΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	4.7Ω ~ 1MΩ	$\pm 50\text{ppm}$
TC12	1/2W	-55~+125°C	150V	300V	$\pm 0.10\%$	100Ω ~ 25KΩ	$\pm 5\text{ppm}$
					$\pm 0.25\%$	50Ω ~ 200KΩ	$\pm 10\text{ppm}$
					$\pm 0.5\%$	4.7Ω ~ 1MΩ	$\pm 25\text{ppm}$
					$\pm 1\%$	4.7Ω ~ 1MΩ	$\pm 50\text{ppm}$