

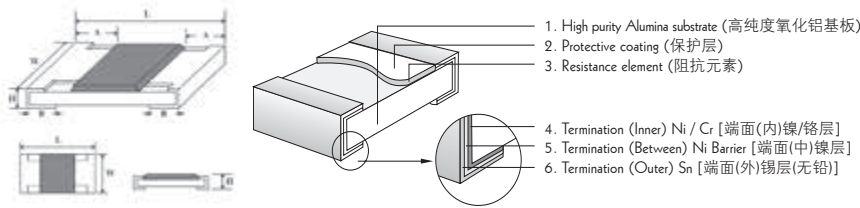
Feature (特性)

- 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

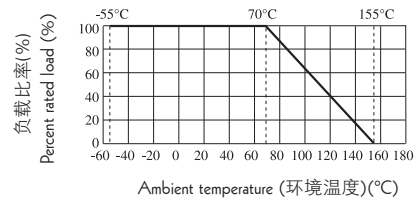
Application (应用)

- 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 $\pm$ 0.10	0.45 $\pm$ 0.10	0.30 $\pm$ 0.20	0.30 $\pm$ 0.20
TC05	2.00 $\pm$ 0.15	1.25 <sup>+0.15</sup> / <sub>-0.10</sub>	0.55 $\pm$ 0.10	0.40 $\pm$ 0.20	0.40 $\pm$ 0.20
TC06	3.10 $\pm$ 0.15	1.55 <sup>+0.15</sup> / <sub>-0.10</sub>	0.55 $\pm$ 0.10	0.45 $\pm$ 0.20	0.45 $\pm$ 0.20
TC07	3.10 $\pm$ 0.10	2.60 $\pm$ 0.20	0.55 $\pm$ 0.10	0.45 $\pm$ 0.20	0.45 $\pm$ 0.20
TC10	5.00 $\pm$ 0.10	2.50 $\pm$ 0.20	0.55 $\pm$ 0.10	0.60 $\pm$ 0.25	0.50 $\pm$ 0.20
TC12	6.35 $\pm$ 0.10	3.20 $\pm$ 0.20	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 $\Omega$  T/R-5000)

订购方式(例如: 薄膜TC06 1/8W 0.1% 25PPM 1K $\Omega$  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, TC07, 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 1<sup>st</sup> to 3<sup>rd</sup> digits are for the significant figures of the resistance and the 4<sup>th</sup> 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

**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)

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

### 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	$\Delta R \leq \pm 0.2\%$ >7KΩ $\Delta R \leq \pm 0.5\%$
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 Range 阻值范围				TCR 温度系数
					$\pm 0.10\%$	$\pm 0.25\%$	$\pm 0.5\%$	$\pm 1\%$	
TC02	1/16W	-55°C~+155°C	25V	50V	100Ω~2KΩ	100Ω~2KΩ	100Ω~2KΩ	$\pm 5$ PPM/°C	
					50Ω~12KΩ	50Ω~12KΩ	50Ω~12KΩ	$\pm 10$ PPM/°C	
					10Ω~332KΩ	10Ω~332KΩ	10Ω~332KΩ	$\pm 25$ PPM/°C	
TC03	1/16W	-55°C~+155°C	50V	100V	10Ω~332KΩ	10Ω~332KΩ	10Ω~332KΩ	$\pm 50$ PPM/°C	
					100Ω~4KΩ	100Ω~4KΩ	100Ω~4KΩ	$\pm 5$ PPM/°C	
					50Ω~50KΩ	50Ω~50KΩ	50Ω~50KΩ	$\pm 10$ PPM/°C	
TC05	1/10W	-55°C~+155°C	100V	200V	4.7Ω~1MΩ	1.5Ω~1MΩ	1Ω~1MΩ	$\pm 25$ PPM/°C	
					100Ω~10KΩ	100Ω~10KΩ	100Ω~10KΩ	$\pm 5$ PPM/°C	
					50Ω~100KΩ	50Ω~100KΩ	50Ω~100KΩ	$\pm 10$ PPM/°C	
TC06	1/8W	-55°C~+155°C	150V	300V	4.7Ω~1MΩ	1Ω~1MΩ	1Ω~1MΩ	$\pm 25$ PPM/°C	
					100Ω~15KΩ	100Ω~15KΩ	100Ω~15KΩ	$\pm 5$ PPM/°C	
					50Ω~200KΩ	50Ω~200KΩ	50Ω~200KΩ	$\pm 10$ PPM/°C	
TC07	1/5W	-55°C~+155°C	150V	300V	4.7Ω~1MΩ	1Ω~1MΩ	1Ω~1MΩ	$\pm 25$ PPM/°C	
					100Ω~25KΩ	100Ω~25KΩ	100Ω~25KΩ	$\pm 5$ PPM/°C	
					50Ω~200KΩ	50Ω~200KΩ	50Ω~200KΩ	$\pm 10$ PPM/°C	
TC10	1/4W	-55°C~+155°C	150V	300V	4.7Ω~1MΩ	1Ω~1MΩ	1Ω~1MΩ	$\pm 25$ PPM/°C	
					100Ω~25KΩ	100Ω~25KΩ	100Ω~25KΩ	$\pm 5$ PPM/°C	
					50Ω~200KΩ	50Ω~200KΩ	50Ω~200KΩ	$\pm 10$ PPM/°C	
TC12	1/2W	-55°C~+155°C	150V	300V	4.7Ω~1MΩ	1Ω~1MΩ	1Ω~1MΩ	$\pm 25$ PPM/°C	
					100Ω~25KΩ	100Ω~25KΩ	100Ω~25KΩ	$\pm 5$ PPM/°C	
					50Ω~200KΩ	50Ω~200KΩ	50Ω~200KΩ	$\pm 10$ PPM/°C	