

# High Power Thin Film Chip Resistors

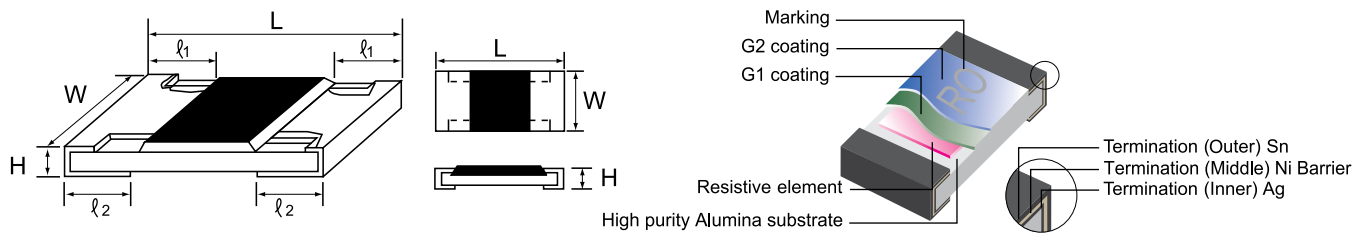
## Performance Specification

Short Time Overload	±0.5% Max
Insulation Resistance	Min. 1,000 Mega Ohm
Humidity (Steady State)	±0.3% Max
Load Life	±0.2%; >7KΩ ± 0.5% Max
Terminal Bending	±0.2% Max
Solderability	Min. 95% coverage.
Resistance to Soldering Heat	±0.2% Max
Dielectric Withstanding Voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.

## Ordering Procedure: Ex.: TP06, 1/4W, 25PPM, +/-0.25%, 10Ω T/R-5000

T	P	0	6	2	5	C	1	0	0	J	T	5	E		
<b>Resistor Size:</b> TP03 = 0603    TP05 = 0805 TP06 = 1206    TP07 = 1210				<b>Temperature Coefficient:</b> 05 = 5PPM    25 = 25PPM 10 = 10PPM    50 = 50PPM 15 = 15PPM    A0 = 100PPM				<b>Resistance Value:</b> <ul style="list-style-type: none"> <li>E-24 series: 1<sup>st</sup> digit is "0" 2<sup>nd</sup> &amp; 3<sup>rd</sup> digits are significant figures of the resistance 4<sup>th</sup> indicates the number of zeros</li> <li>E-96 series: 1<sup>st</sup> to 3<sup>rd</sup> digits are significant figures of the resistance 4<sup>th</sup> digit indicates the number of zeros. "J" ~ 0.1, "K" ~ 0.01, "L" ~ 0.001 Ex. 012J ~ 1Ω, 226K ~ 2Ω26</li> </ul>				<b>Packing Type:</b> T = Paper Tape/Reel E = Plastic Tape/Reel			
<b>Tolerance:</b> B = ±0.10% C = ±0.25% D = ±0.5% F = ±1%						<b>Packing Qty:</b> 4 = 4,000 pcs.    5 = 5,000 pcs.    C = 10,000 pcs.									
<b>Special Feature:</b> E = Lead (Pb) Free Plating Type/ RoHS compliant															

## Dimension



Type	Dimension (mm)				
	L	W	H	l <sub>1</sub>	l <sub>2</sub>
TP03 (0603)	1.60±0.15	0.80±0.15	0.45±0.10	0.30±0.20	0.30±0.20
TP05 (0805)	2.00±0.15	1.25±0.15	0.55±0.10	0.35±0.25	0.40±0.25
TP06 (1206)	3.10±0.20	1.55±0.15	0.55±0.10	0.45±0.25	0.45±0.25
TP07 (1210)	3.10±0.15	2.50±0.25	0.55±0.10	0.50±0.30	0.55±0.25

**Note:**  
 1.) Standard Operating Temp (°C) : -55 -+155  
 2.) Standard : All Tolerance use E-96 Series  
 Only 2% & 5% use E-24 Series



## High Power Thin Film Chip Resistors

### Features

- Thin Film NiCr resistance element
- Precision tolerance from  $\pm 0.10\%$ ,  $\pm 0.25\%$ ,  $\pm 0.50\%$ ,  $\pm 1\%$
- Extremely low TCR from  $\pm 25$  PPM/ $^{\circ}$ C,  $\pm 50$  PPM/ $^{\circ}$ C
- Special packaging 1,000 pcs. / 2,000 pcs. per reel available



### Application

- Medical equipment
- Testing / Measuring equipment
- Communication device, cellphone. GPS, PDA
- Automatic equipment controller
- Printer equipment
- Converters

### Standard

Type	Power Rating at 70 $^{\circ}$ C	Max Working Voltage	Max Overload Voltage	T.C.R. PPM/ $^{\circ}$ C	Tolerance %	Resistance Range
TP03 (0603)	1/6W-S 1/10W	75V	150V	$\pm 25$ $\pm 50$	$\pm 0.10\%$	4.7 $\Omega$ ~ 1M $\Omega$
					$\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	1.5 $\Omega$ ~ 1M $\Omega$
				$\pm 10$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	10 $\Omega$ ~ 10K
TP05 (0805)	1/4W-S 1/8W	150V	300V	$\pm 25$ $\pm 50$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	4.7 $\Omega$ ~ 1M $\Omega$
				$\pm 10$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	10 $\Omega$ ~ 10K
TP06 (1206)	1/3W-S 1/4W	200V	400V	$\pm 25$ $\pm 50$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	4.7 $\Omega$ ~ 1M $\Omega$
				$\pm 10$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	10 $\Omega$ ~ 10K
TP07 (1210)	1/3W	200V	400V	$\pm 25$ $\pm 50$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	4.7 $\Omega$ ~ 10M $\Omega$
TP10 (2010)	1/2W	200V	400V	$\pm 25$ $\pm 50$	$\pm 0.10\%$ $\pm 0.25\%$ $\pm 0.50\%$ $\pm 1.00\%$	4.7 $\Omega$ ~ 10M $\Omega$