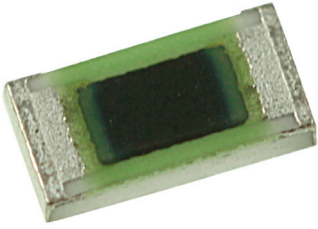


# Trimmable Resistors (TRCR Series)



## Features:

- RoHS Compliant (5/6) and Halogen Free
- Suitable for laser fine tuning
- TCR of  $\pm 200\text{ppm}$
- Wattage up to 1W

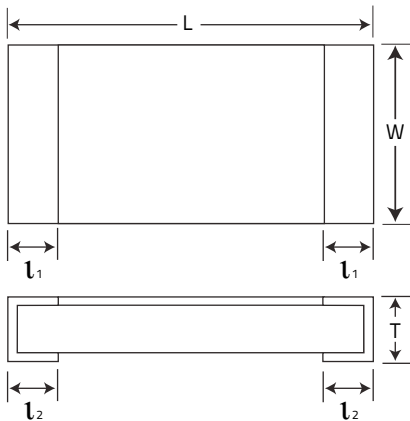
## Part Number Structure

TRCR Series	0805 Size	- 470 Resistance Code	M Tolerance	T Packaging
0603	0805	470 = $47\Omega$	M = $\pm 20\%$	T = Tape & Reel
0805	1206	100 = $10\Omega$	N = 0 to -30%	
1210	2010	103 = $10\text{K}\Omega$		
2512				

Example P/N: TRCR0805-470MT

Standard termination finish is 100% matte Tin (Sn) over Nickel.

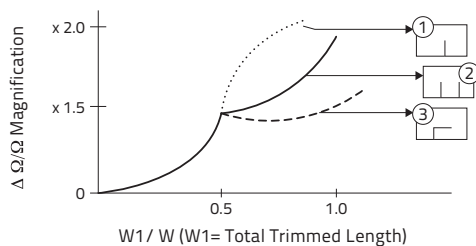
## Dimensions



Unit: mm (inches)

Size (inches)	L	W	T	C
0603	$1.6 \pm 0.1$ ( $0.063 \pm 0.004$ )	$0.8 \pm 0.1$ ( $0.031 \pm 0.004$ )	$0.45 \pm 0.1$ ( $0.018 \pm 0.004$ )	$0.30 \pm 0.15$ ( $0.012 \pm 0.015$ )
0805	$2.00 \pm 0.15$ ( $0.079 \pm 0.006$ )	$1.25 \pm 0.15$ ( $0.049 \pm 0.006$ )	$0.50 \pm 0.15$ ( $0.020 \pm 0.006$ )	$0.40 \pm 0.25$ ( $0.016 \pm 0.008$ )
1206	$3.20 \pm 0.15$ ( $0.126 \pm 0.006$ )	$1.60 \pm 0.15$ ( $0.063 \pm 0.006$ )	$0.60 \pm 0.15$ ( $0.024 \pm 0.006$ )	$0.45 \pm 0.25$ ( $0.018 \pm 0.010$ )
1210	$3.2 \pm 0.2$ ( $0.126 \pm 0.008$ )	$2.6 \pm 0.2$ ( $0.102 \pm 0.008$ )	$0.50 \pm 0.3$ ( $0.024 \pm 0.004$ )	$0.5 \pm 0.3$ ( $0.020 \pm 0.012$ )
2010	$5.0 \pm 0.2$ ( $0.197 \pm 0.008$ )	$2.50 \pm 0.20$ ( $0.098 \pm 0.008$ )	$0.6 \pm 0.1$ ( $0.024 \pm 0.004$ )	$0.5 \pm 0.3$ ( $0.020 \pm 0.012$ )
2512	$6.3 \pm 0.2$ ( $0.248 \pm 0.008$ )	$3.1 \pm 0.2$ ( $0.122 \pm 0.008$ )	$0.60 \pm 0.15$ ( $0.024 \pm 0.004$ )	$0.5 \pm 0.3$ ( $0.020 \pm 0.012$ )

## Laser Trimming Cuts

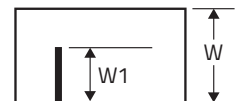


- ① Single Cut      ② Double Cut      ③ L Cut

Trimming by laser increases the initial resistance. Amount of R is dependent on the laser cut configuration as demonstrated.

W1 must not exceed 1/2 of W to ensure power rating of the unit.

Ability to reach 2x Original R



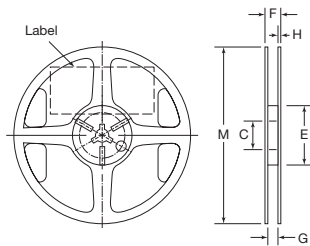
# Trimmable Resistors (TRCR Series)

## Electrical Specifications and Range

	Size	0603	0805	1206	1210	2010	2512
Power Rating at 70°C (W)		0.063W (1/16W)	0.10W (1/10W)	0.125W (1/8W)	0.25W (1/4W)	0.50W (1/2W)	1.0W
Max. Working Voltage		$\sqrt{PR}$ or 50V whichever is less	$\sqrt{PR}$ or 150V whichever is less	$\sqrt{PR}$ or 200V whichever is less	$\sqrt{PR}$ or 200V whichever is less	$\sqrt{PR}$ or 200V whichever is less	$\sqrt{PR}$ or 200V whichever is less
Operating Temp. Range		-55°C to +155°C	-55°C to +155°C	-55°C to +155°C	-55°C to +155°C	-55°C to +155°C	-55°C to +155°C
Tolerance	TCR	Resistance Range	Resistance Range	Resistance Range	Resistance Range	Resistance Range	Resistance Range
±20% (M)	±200ppm	10Ω - 4.7MΩ	10Ω - 4.7MΩ	10Ω - 4.7MΩ	10Ω - 4.7MΩ	10Ω - 4.7MΩ	10Ω - 4.7MΩ
0 to -30% (N)							

NOTE: Overload Voltage= $2.5\sqrt{P \cdot R}$ .

## Reel Specifications

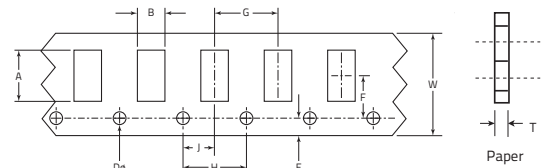


Unit: mm (inch)

C	E	F	G	H	M
13.0 ± 0.2 (0.51 ± 0.008)	60.0 ± 1.0 (2.36 ± 0.03)	11.4 ± 1.0 (0.45 ± 0.04)	9.0 ± .3 (0.35 ± 0.012)	1.5 ± .3 (0.06 ± 0.012)	180 ± 2.0 (7.09 ± 0.08)

Minimum of 30 empty pockets at the beginning of reel, 65 minimum empty pockets at the end.

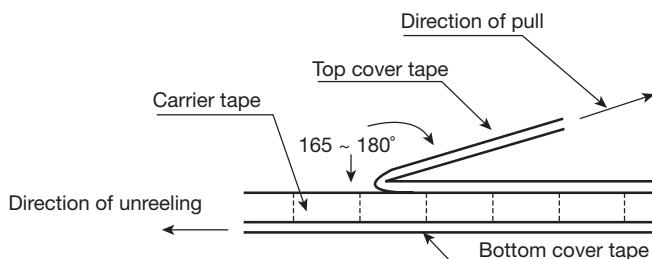
## Tape Specifications



All dimensions in mm.

Tape	Size	A	B	W	E	F	T	G	H	J	Dø
Paper	0603	1.9 ± 0.1	1.1 ± 0.1	8.0 ± 0.2	1.75 ± 0.1	3.5 ± 0.05	0.70 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0
	0805	2.4 ± 0.1	1.65 ± 0.1	8.0 ± 0.2	1.75 ± 0.1	3.5 ± 0.05	0.85 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0
	1206	3.5 ± 0.1	1.9 ± 0.1	8.0 ± 0.2	1.75 ± 0.1	3.5 ± 0.05	0.85 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0
	1210	3.5 ± 0.1	2.8 ± 0.1	8.0 ± 0.2	1.75 ± 0.1	3.5 ± 0.05	0.85 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0
Plastic	2010	5.4 ± 0.2	2.9 ± 0.2	12.0 ± 0.1	1.75 ± 0.1	5.5 ± 0.5	1.20 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0
	2512	6.9 ± 0.2	3.6 ± 0.2	12.0 ± 0.1	1.75 ± 0.1	5.5 ± 0.5	1.20 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	1.5 + 0.1-0

## Peel Back Force and Direction Diagram



Peel back force and direction of peel back angle should follow EIA481-1-A. Peel back force should be between 0.1N – 1.3N and peel back angle of 165° – 180°.