

## Trimmable Chip Resistors

### Type TCR Series

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Precious metal terminations are screen printed onto a ceramic base and fired. The resistive element is screen printed and fired and the passivation layer added. The pre-scribed tile is broken into strips, the end plating is fired on and the strips broken into individual components. Final termination is made by electroplating.

#### Key Features

- TCR chip resistors are suitable for most applications, including high frequency operation, owing to the short lead structure and low capacitance.
- The TCR series of chip resistors is designed to be used in circuits where variable resistors might otherwise be used.
- The resistance film and the coating have been specified to permit YAG laser trimming.
- Case sizes 0805 and 1206.

#### Characteristics - Electrical

	0805		1206	
Rated Power @ 70°C (W):	0.1		0.125	
Resistance Range (Ohms)	Min: 1	10	1	10
	Max: 9.1	4M7	9.1	4M7
Selection Series	E24			
Tolerance (%):	±15 or 0/-30			
Code Letter:	L P			
Temperature Coefficient (ppm/°C):	-200/+500	± 200	-200/+500	± 200
Operating Temperature Range (°C):	-55 to +125			
Climatic Category:	55/125/56			
Limiting Element Voltage (V):	150		200	
Insulation Resistance Dry Min (M ohms):	1000			

#### Dimensions



Style	L	W	H	A	D	c	d
0805	2.0 ± 0.1	1.25 ± 0.10	0.55 ± 0.1	0.71 ± 0.1	0.66 ± 0.1	0.4 ± 0.2	0.4 ± 0.2
1206	3.2 ± 0.15	1.6 ± 0.15	0.55 ± 0.1	0.95 ± 0.1	1.30 ± 0.1	0.5 ± 0.25	0.5 ± 0.25

#### Power Derating Curve



#### Marking

TCR series resistors are not marked.

#### Mounting

The resistors are suitable for processing on automatic insertion equipment.

#### Storage

Unopened reels should be stored within a temperature range of +5 °C to +25 °C, separated from any dust, chemicals and solvent based materials. Non-adherence to this procedure could effect the solderability of this product.

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#### Performance Characteristics

The evaluation of the performance characteristics is carried out with reference to IEC specifications QC 400 000 and QC 400 600

TEST REF	Long Term Tests $\pm$ (5% + 0.1 ohm)
4.23	Climatic sequence
4.24	Damp heat, steady state
4.25.1	Endurance at 70°C
4.25.3	Endurance at 125°C
TEST REF	Short Term Tests $\pm$ (1% + 0.05 ohm)
4.13	Overload
4.32	Adhesion
4.33	Bond strength of end face plating
4.19	Rapid change of temperature
4.18	Resistance to soldering heat

#### How to Order

Orders for these components should include the following information:-  
Type, tolerance code letter and value e.g. **TCR0805L470K**.