

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**.