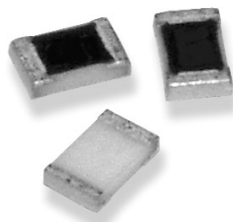


## Type TCR Series



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.

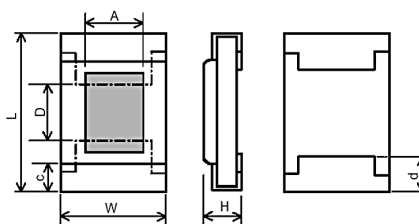
### Key Features

- 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

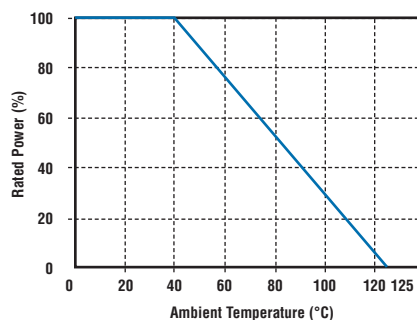
| 0805                                    |           |       | 1206         |       |
|-----------------------------------------|-----------|-------|--------------|-------|
| Rated Power @ 70°C (W):                 |           |       | 0.125        |       |
| Resistance Range (Ohms)                 | Min:      | 1     | 1            | 10    |
|                                         | Max:      | 9.1   | 4M7          | 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.

## Type TCR Series

### 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**.