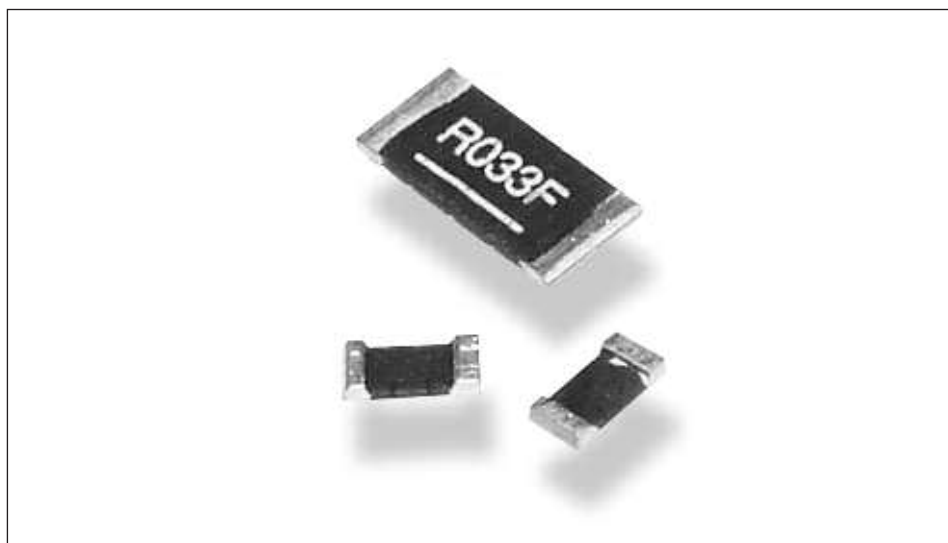


Type TLR Series

Key Features

- Up to 3 Watt at 80°C
- Supplied on Tape
- Ideal for Current Detection
- 12:06, 20:10 and 25:12 Packages Available

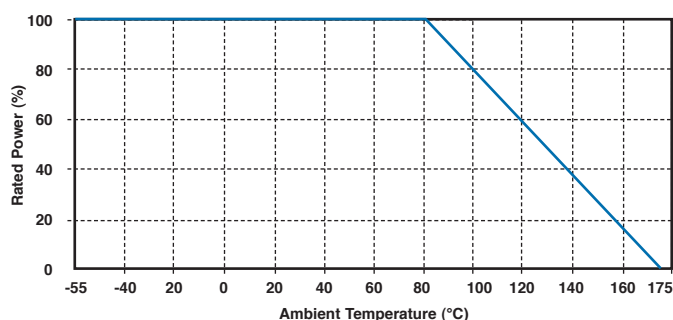


TE Connectivity (TE) is pleased to offer this unique High Power, metal chip resistor for current sensing positions. It has a special metal resistive element and suitable barrier layers beneath the solder to prolong terminal life. Following the developments by semiconductor manufacturers in the production of a range of IC's for battery charge management and low voltage power supplies, the TLR Series satisfies the demand for a low ohmic shunt resistor to act as a current sensor. It has particular applications in the automotive industry for sensing in EMU's.

Characteristics - Electrical

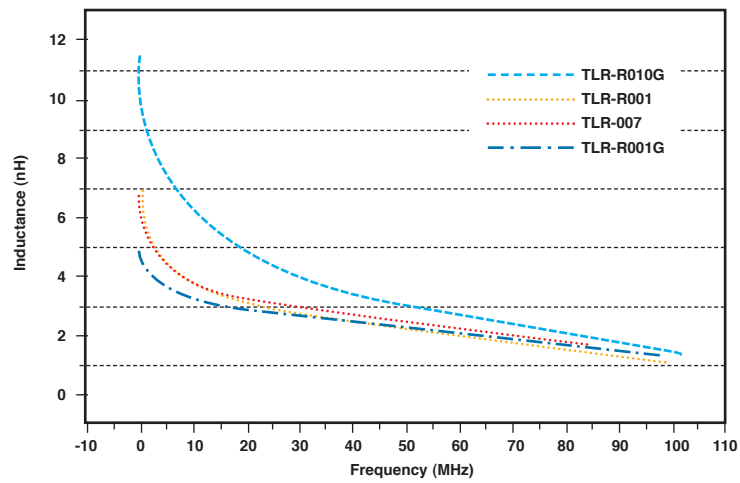
| | 1206 | 2010 | 2512 |
|--------------------------------|------------|-----------------|-----------------------------|
| Resistance Value Range: | R001 - R01 | R001 - R01 | R0005 - R015 |
| Resistance Tolerance: | | ±1% ±3% ±5% | |
| Power Rating: | 1.0 Watt | 1.0 / 1.5 Watts | 1.0 / 2.0 / 2.5 / 3.0 Watts |
| Operating Temperature: | | -55°C to +170°C | |
| Inductance: | | See below chart | |
| T.C.R. | | See below chart | |

Power Derating Curve

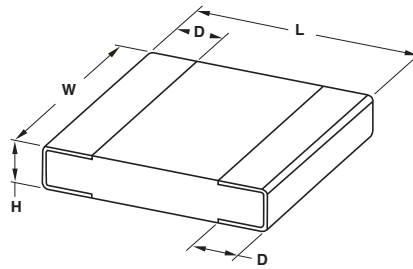


Type TLR Series

Inductance Test



Dimensions



| Type | L | W | H | D | Reel Qty |
|-------|-----|-----|-----|-----|----------|
| TLR2B | 3.2 | 1.6 | 0.6 | 0.5 | 2000 |
| TLR2H | 5.1 | 2.5 | 0.6 | 0.5 | 2000 |
| TLR3A | 6.4 | 3.2 | 0.6 | 0.8 | 2000 |

N.B. Dimensions shown are reference only. For exact Dimensions please see relevant drawing.

Standard Electrical Specifications

| Size | Power Rating (W) | Value Range (mΩ) | TCR (ppm/°C) | Resistance Tolerance (±%) |
|------|------------------|------------------|--------------|---------------------------|
| 1206 | 1.0 | 1.0 - 10 | 50 | 1,3,5 |
| 2512 | 1.0 | 0.5 - 2.0 | 50 | 1,3,5 |
| | | 11 - 15 | 50 | |
| | | 6.0 - 7.0 | 75 | |
| | | 4.0 - 5.0 | 100 | |
| | | 2.5 - 3.0, 10 | 150 | |

Type TLR Series

High Power Rating Electrical Specifications

| Size | Power Rating (W) | Value Range (mΩ) | TCR (ppm/°C) | Resistance Tolerance (±%) |
|------|------------------|------------------|--------------|---------------------------|
| 2010 | 1.5 | 1.0 - 10 | 50 | 1,3,5 |
| | 2.0 | 0.5 - 10 | 50 | |
| | 2.5 | 4.0 - 6.0 | 50 | |
| 2512 | 3.0 | 0.5 - 0.75 | 100 | 1,3,5 |
| | | 1.0 - 3.0 | 50 | |

Resistance codes example - 3 Marking

| Resistance | 0.5mΩ | 0.75mΩ |
|------------|-------|--------|
| Codes | M50 | M75 |

Resistance codes example - 4 Marking

| Resistance | 1mΩ | 1.5mΩ | 2mΩ | 7mΩ | 10mΩ |
|------------|------|-------|------|------|------|
| Codes | R001 | 1M50 | R002 | R007 | R010 |

How to Order

| TLR | 2B | 10 | D | R022 | J | TDG |
|---|-------------------------------------|--|--|---|-------------------------------|-------------------|
| Common Part | Dimensions | *Power Rating | **TCR | Resistance Code | Tolerance | Packaging |
| TLR - Ultra Low Ohm Metal Strip Chip Resistor | 2B - 1206 2H - 2010 3A - 2512 | 1.0 - 10 1.5 - 15 2.0 - 20 2.5 - 25 3.0 - 30 | D - ±50 PPM/°C W - ±75 PPM/°C E - ±100 PPM/°C K - ±150 PPM/°C | R0005 - 0.0005Ω R00075 - 0.00075Ω R0015 - 0.0015Ω R002 - 0.002Ω R022 - 0.022Ω | J - ±5% H - ±3% F - ±1% | TDG - 2000 / Reel |

* See above chart for Power rating availability per case size

** See above chart for TCR availability per Ohmic Value

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.

Other logos, product and Company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this datasheet, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this datasheet are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

[TLR3A20KR003FTDG](#) [TLR3A20DR006FTDG](#) [TLR3A20DR008FTDG](#) [TLR3A20DR005FTDG](#)
[TLR3A20DR0015FTDG](#) [TLR2H15DR010FTDG](#) [TLR3A30DR0015FTDG](#) [TLR3A20DR009FTDG](#)
[TLR3A30ER00075FTDG](#) [TLR3A20DR002FTDG](#) [TLR3A10DR013FTDG](#) [TLR3A20ER004FTDG](#) [TLR3A20ER010FTDG](#)
[TLR3A10DR008FTDG](#) [TLR3A25DR006FTDG](#) [TLR3A10WR033FTDG](#) [TLR2H15DR001FTDG](#)
[TLR2B10WR015FTDG](#) [TLR3A10ER004FTDG](#) [TLR3A25DR005FTDG](#) [TLR3A30WR010FTDG](#) [TLR3A20DR007FTDG](#)
[TLR3A20WR10FTDG](#) [TLR3A20WR006FTDG](#) [TLR3A10DR015FTDG](#) [TLR2H10ER006FTDG](#) [TLR2B10WR012FTDG](#)
[TLR3A20KR0025FTDG](#) [TLR3A10DR002FTDG](#) [TLR3A30WR018FTDG](#) [TLR3A25DR004FTDG](#)
[TLR2B10DR004FTDG](#) [TLR3A20WR030FTDG](#) [TLR3A10WR010FTDG](#) [TLR2B10DR007FTDG](#) [TLR2B10DR002FTDG](#)
[TLR2H10WR015FTDG](#) [TLR2H10ER01FTDG](#) [TLR3A30WR020FTDG](#) [TLR2B10DR009FTDG](#) [TLR2H10WR020FTDG](#)
[TLR3A20DR00075FTDG](#) [TLR2H15DR002FTDG](#) [TLR3A20DR0065FTDG](#) [TLR2B10WR020FTDG](#)
[TLR3A25DR0045FTDG](#) [TLR3A20WR015FTDG](#) [TLR2B10DR006FTDG](#) [TLR2H15WR020FTDG](#)
[TLR3A30DR002FTDG](#) [TLR3A10DR012FTDG](#) [TLR2B10DR008FTDG](#) [TLR3A10ER005FTDG](#) [TLR2B10WR030FTDG](#)
[TLR3A20WR007FTDG](#) [TLR2B10DR003FTDG](#) [TLR3A30WR10FTDG](#) [TLR3A30WR030FTDG](#) [TLR3A20WR020FTDG](#)
[TLR3A10WR10FTDG](#) [TLR2H15DR005FTDG](#) [TLR2B10WR022FTDG](#) [TLR3A20WR075FTDG](#) [TLR3A10WR012FTDG](#)
[TLR3A10WR030FTDG](#) [TLR2B10DR001FTDG](#) [TLR3A10KR003FTDG](#) [TLR3A10KR0025FTDG](#)
[TLR3A10DR0005FTDG](#) [TLR3A10WR006FTDG](#) [TLR2H15DR006FTDG](#) [TLR3A10DR001FTDG](#)
[TLR3A10DR00075FTDG](#) [TLR3A10DR0015FTDG](#) [TLR3A10WR007FTDG](#)