



Ultra Low Ohm (Metal Strip) Chip Resistor



Features

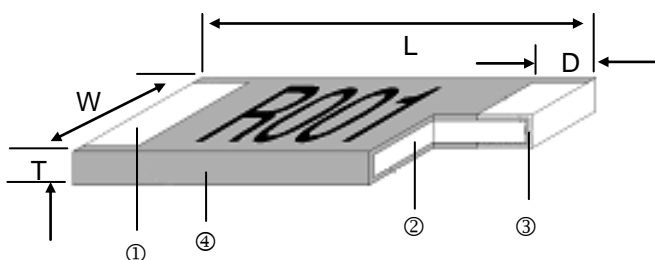
- High power rating up to 3 Watts
- Low TCR down to ± 50 PPM/ $^{\circ}$ C
- Resistance values from 0.5m to 10m ohm
- Customized resistance available
- Wide range package sizes 1206 / 2010 / 2512
- AEC-Q200 Compliance (only LR12 Black)

Applications

- NB (for Power Management)
- MB (for Power Management)
- SWPS (DC-DC Converter, Charger, Adaptor)
- Monitor (for Power Management)

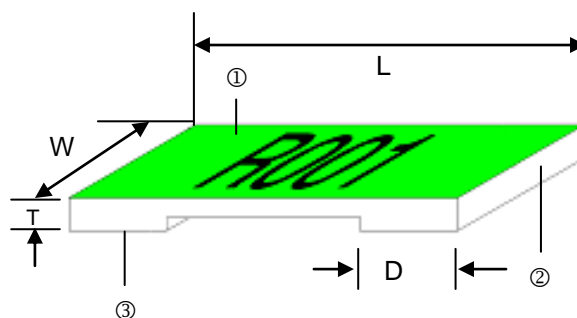
Construction & Dimension

2512



Black – Wave or IR reflow soldering

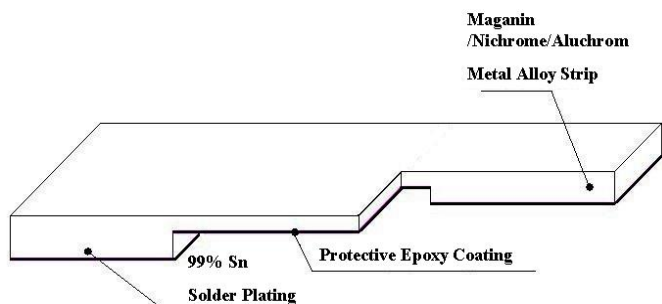
| | |
|------------------|-----------------|
| ① Solder Plating | ③ Barrier Layer |
| ② Alloy Plate | ④ Overcoat |



Green – IR reflow soldering only

| | |
|---------------|------------------|
| ① Overcoat | ③ Solder Plating |
| ② Alloy Plate | |

1206 & 2010



| Type | Material |
|------------|--------------------------|
| 0M50~ R003 | Manganese, Copper |
| 3M5 ~ R010 | Aluminum, Iron, Chromium |



Dimensions

Unit: mm

| Part No. | Resistance (m) | L | W | T | D | Weight (g) (1000pcs) |
|--------------|-----------------------------|-----------|-----------|-----------|-----------|----------------------|
| LR06□TF0M50 | 0.5 | 3.20±0.25 | 1.60±0.10 | 0.60±0.20 | 1.35±0.25 | 22.6 |
| LR06□TD0M75 | 0.75 | 3.20±0.25 | 1.60±0.10 | 0.60±0.20 | 1.23±0.25 | 22.6 |
| LR06□T□□□□□ | 1.0 , 3.5, 4.0 , 5.0 , 6.0 | 3.20±0.25 | 1.60±0.10 | 0.60±0.20 | 1.10±0.25 | 22.6 |
| LR06□T□□□□□ | 2.0 , 3.0 , 10 | 3.20±0.25 | 1.60±0.10 | 0.60±0.20 | 0.60±0.25 | 22.6 |
| LR06□T□□□□□ | 1.2 , 1.5 , 7.0 , 8.0 , 9.0 | 3.20±0.25 | 1.60±0.10 | 0.60±0.20 | 0.90±0.25 | 22.6 |
| LR10□TEA0M50 | 0.5 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 2.17±0.25 | 42.3 |
| LR10□TDA0M75 | 0.75 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 2.04±0.25 | 42.3 |
| LR10□TDA□□□□ | 1.0 , 1.5 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 1.84±0.25 | 42.3 |
| LR10□TDA□□□□ | 2.0, 6.0 , 7.0 , 8.0 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 1.54±0.25 | 42.3 |
| LR10□TDA□□□□ | 3.0 , 3.5 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 1.04±0.25 | 42.3 |
| LR10□TDA□□□□ | 4.0 , 5.0, 5.5 | 5.08±0.25 | 2.54±0.15 | 0.60±0.20 | 1.84±0.25 | 42.3 |

Part Numbering

LR06, LR10,

hm (Metal Strip) Chip Resistor



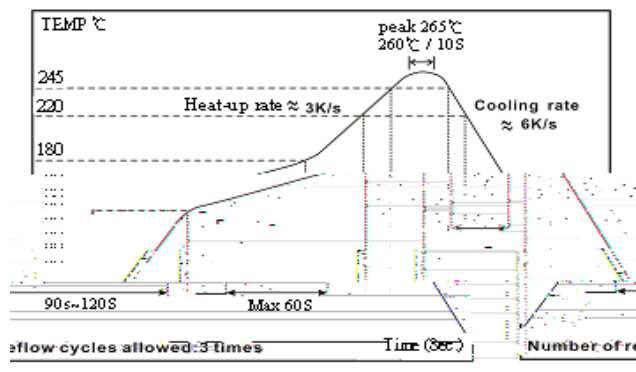
Standard Ele

| Part No. | Item | Power | Operating Temp. Range | Resistance Range (m) | | | TCR (PPM/°C) |
|-------------|------|-------|-----------------------|-----------------------|-----------|-----|--------------|
| | | | | ±1% | ±3% | ±5% | |
| LR06□TF0M50 | | 1W | | | 0.5 | | ±200 |
| LR06□TD□□□□ | | 1W | | | 0.75 - 10 | | ±50 |

-55°C ~ +170°C



Reflow



Green coating "Reflow Air Convection" is available
 Green coating can't be working with wave soldering bath

Environmental Characteristics

| Item | Requirement | | Test Method |
|--|-------------------|---------------|---|
| | Black coating | Green coating | |
| Temperature Coefficient of Resistance (T.C.R.) | As Spec. | | MIL-STD-202 Method 304 +25°C ~125°C, 25°C is the reference temperature |
| Short Time Overload | ±0.5% | ±1% | JIS-C-5201-1 5.5 5*rated power for 5 seconds |
| Endurance | ±1% | ±1% | MIL-STD-202 Method 108A 70±2°C, RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hr "OFF" |
| Dry Heat | ±1% | ±1% | JIS-C-5201-1 7.2 at +170°C for 1000 hrs |
| Solderability | 95% min. coverage | | MIL-STD-202 Method 208H 245±5°C for 3 seconds |
| Resistance to Soldering Heat | ±0.5% | ±1% | MIL-STD-202 Method 210E 260±5°C for 10 seconds |
| Thermal Shock | ±0.5% | ±1% | MIL-STD-202 Method 107G -55°C ~ 150°C, 100 cycles |

**Green coating can't be work with wave soldering bath.

RCWV(Rated Continuous Working Voltage)= $\sqrt{P \cdot R}$ or Max. Operating Voltage whichever is lower

■Storage Temperature: 15~28°C; Humidity < 80%RH

Derating Curve

