



# Metal foil low resistance chip resistors (4 terminal type)

## KRL series

### Features

- Separated voltage terminal for precise measurement of voltage
- TCR stable at very low resistance: 4mΩ: ±50ppm/°C
- Power ratings: 1W ~ 5W

### Applications

- Smartphones, mobile telephones, PCs, HDD, audio visual equipment, power devices, inverters.
- automotive electronics, industrial measurement instrumentation/equipment.



## ◆Part numbering system

**KRL 3216T4 - M - R010 - F - T1**  
**(KRL 3216T4A - M - R010 - F - T1)**

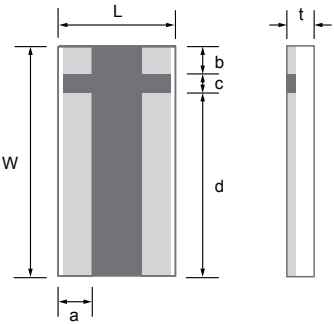
|                                                                 |                          |                                                   |
|-----------------------------------------------------------------|--------------------------|---------------------------------------------------|
| Series code                                                     |                          | Packaging quantity:<br>T1(1,000pcs), T5(5,000pcs) |
| Size: KRL3216T4, KRL6432T4, KRL7638T4<br>KRL9045T4, KRL11050T4, |                          | Resistance tolerance                              |
| Temperature characteristics type: M (low EMF)                   | Nominal resistance value |                                                   |

## ◆Electrical Specification

| Type                      | Power ratings | Temperature coefficient of resistance | Resistance range(Ω) Resistance tolerance <sup>*1</sup> |         |         | Resistance value series | Operating temperature   | Packaging quantity |
|---------------------------|---------------|---------------------------------------|--------------------------------------------------------|---------|---------|-------------------------|-------------------------|--------------------|
|                           |               | (ppm/°C)                              | ±1% (F)                                                | ±2% (G) | ±5% (J) |                         |                         |                    |
| KRL3216T4<br>(KRL3216T4A) | 1W            | ±50<br>(±35)                          | 4m≤R≤9m<br>(1m step)<br>10m≤R≤100m<br>R=200m, 500m     | —       | —       | E6 <sup>*2</sup>        | -55℃ ~ 155℃<br>(Code M) | T1<br>T5           |
|                           |               | ±100 (±75)                            | R=3m                                                   | R=2m    | R=1m    |                         |                         |                    |
| KRL6432T4                 | 2W            | ±50                                   | 4m≤R≤9m<br>(1m step)<br>10m≤R≤100m<br>R=200m, 500m     | —       | —       |                         |                         |                    |
|                           |               | ±100                                  | R=3m                                                   | R=2m    | R=1m    |                         |                         |                    |
| KRL7638T4                 | 3W            | ±50                                   | 4m≤R≤9m<br>(1m step)<br>10m≤R≤100m<br>R=200m, 500m     | —       | —       |                         |                         |                    |
|                           |               | ±100                                  | R=3m                                                   | R=2m    | R=1m    |                         |                         |                    |
| KRL9045T4                 | 4W            | ±50                                   | 4m≤R≤9m<br>(1m step)<br>10m≤R≤100m<br>R=200m, 500m     | —       | —       |                         |                         | T1                 |
|                           |               | ±100                                  | R=3m                                                   | R=2m    | R=1m    |                         |                         |                    |
| KRL11050T4                | 5W            | ±50                                   | 4m≤R≤9m<br>(1m step)<br>10m≤R≤100m<br>R=200m, 500m     | —       | —       |                         |                         |                    |
|                           |               | ±100                                  | R=3m                                                   | R=2m    | R=1m    |                         |                         |                    |

<sup>\*1</sup> We can meet your requirement of less than 1mΩ. Please contact our sales office.  
<sup>\*2</sup> We can meet your requirement of resistance value outside of E-6 series. Please contact our sales office.

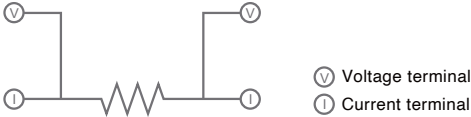
◆Dimensions



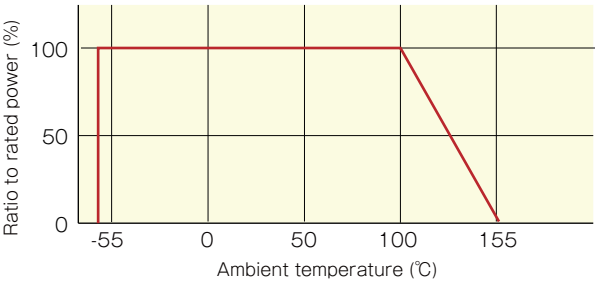
| Type       | Size (inch) | L         | W         | a         | b         | c         | d         | t         |
|------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| KRL3216T4  | 0612        | 1.60±0.20 | 3.20±0.20 | 0.35±0.20 | 0.35±0.15 | 0.20±0.10 | 2.65±0.15 | 0.50±0.20 |
| KRL3216T4A | 0612        | 1.60±0.20 | 3.20±0.20 | 0.45±0.20 | 0.50±0.20 | 0.50±0.20 | 2.20±0.20 | 0.50±0.20 |
| KRL6432T4  | 1225        | 3.20±0.20 | 6.40±0.20 | 0.50±0.20 | 0.70±0.15 | 0.50±0.10 | 5.20±0.15 | 0.50±0.20 |
| KRL7638T4  | 1530        | 3.80±0.20 | 7.60±0.20 | 0.55±0.20 | 0.80±0.20 | 0.60±0.20 | 6.20±0.10 | 0.50±0.20 |
| KRL9045T4  | 1835        | 4.50±0.20 | 9.00±0.20 | 0.50±0.20 | 0.70±0.20 | 0.50±0.20 | 5.20±0.10 | 0.50±0.20 |
| KRL11050T4 | 2043        | 5.00±0.20 | 11.0±0.20 | 0.70±0.20 | 1.40±0.20 | 1.10±0.20 | 8.50±0.10 | 0.50±0.20 |

(unit : mm)

◆Circuit diagram



◆Derating Curve



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