

Metal foil low resistance chip resistors (short-side terminals)

KRL series

AEC-Q200 Compliant

Features

- The C type utilizes materials that withstand high temperatures and can be operated up to 175°C. The M type utilizes low emf materials that are stable up to 155°C. TCR is very stable for very low resistance: +/-100ppm°C for 5mΩ ~ 9mΩ, and +/-50ppm°C for 10mΩ ~ . Face down mounting allows for accurate current measurement. Long and short side terminal types, as well as power ratings from 1/3W to 5W are offered to meet customers' specific requirements. The protective outer coating is halogen free in consideration of the environment.

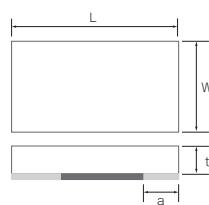
Applications

- PCs, hard drive discs, audio visual equipments, power sources, inverters, automotive electronics, industrial machining equipments, industrial test and measurements, etc.

Specifications

* All made to order.

Dimensions



| Dimensions (mm) | KRL0816 (0603) | KRL1220 (0805) | KRL1632 (1206) | KRL3264 (2512) | KRL50110 (4320) |
|-----------------|----------------|----------------|----------------|----------------|-----------------|
| L | 1.60±0.20 | 2.00±0.20 | 3.20±0.20 | 6.30±0.20 | 11.0±0.20 |
| W | 0.80±0.20 | 1.25±0.20 | 1.60±0.20 | 3.10±0.20 | 5.00±0.20 |
| t | 0.50±0.20 | 0.50±0.20 | 0.50±0.20 | 0.50±0.20 | 0.65±0.20 |
| a(5.0 ~ 7.0mΩ) | — | 0.40±0.20 | 1.10±0.20 | 1.90±0.20 | 3.60±0.30 |
| a(8.0mΩ ~) | — | | 0.50±0.20 | 1.00±0.20 | 2.36±0.30 |
| a(9.0mΩ ~) | 0.30±0.20 | — | — | — | — |

Electrical characteristics

| Series name | KRL0816 | KRL1220 | | KRL1632 | | KRL3264 | | KRL50110 | |
|--|----------------------|--------------------------------|----------|----------|----------|----------|-----------|----------|-----------|
| Power | 0.3W | 1/2W | | 3/4W | | 2W | | 5W | |
| E series offered | E-12 | E-12 | | 1mΩ STEP | E-12 | 1mΩ STEP | E-12 | 1mΩ STEP | E-12 |
| Resistance range (Ω) | 10m~100m | 5m~9m | 10m~100m | 5m~9m | 10m~500m | 5m~9m | 10m~1000m | 5m~9m | 10m~1000m |
| Resistance tolerance (%) | ±1.0(F) ±2.0(G) | ○ — | — ○ | — ○ | ○ — | — ○ | ○ — | — ○ | — ○ |
| Temperature coefficient of resistance (ppm/°C) | ±50 ±100 | ○ — | — ○ | — ○ | ○ — | — ○ | ○ — | — ○ | — ○ |
| Operating temperature | C M | -55°C~175°C -55°C~155°C | | | | | | | |
| Rated ambient temperature (at terminals) | C M | 120°C or less 100°C or less | | | | | | | |
| Packaging | 1,000pcs 5,000pcs | ○ ○ | ○ ○ | ○ ○ | ○ ○ | ○ ○ | ○ ○ | ○ — | ○ — |

Part numbering system

KRL 1220 E - C - R010 - F - T1

— Packaging: T1 (1000pieces) T5 (5000pieces)
 — Resistance tolerance
 — Resistance value
 — Operating temperature: C (High temperature type) M (Low emf type)
 — Lap electrode type: D (Bottom electrode) E (U-shape electrode)
 — Size
 — Series code