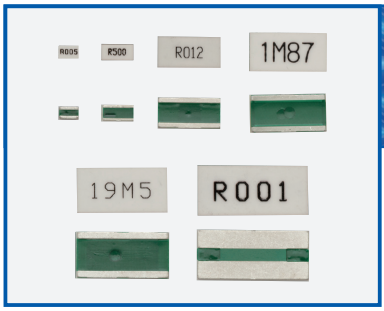


Metal foil low resistance chip resistors (long-side terminals)

KRL series

AEC-Q200 Compliant

Lead free | Halogen free | RoHS Compliance

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: +/-150ppm/°C for 1mΩ, +/-100ppm°C for 2mΩ, and +/-50ppm°C for 3mΩ. Face down mounting allows for accurate current measurement. Long and short side terminal types, as well as power ratings from 1W to 6W are offered to meet customers' specific requirements. The protective outer coating is halogen free in consideration of the environment.

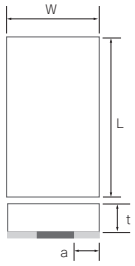
Applications

- 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)	KRL2012	KRL3216	KRL6432	KRL7638	KRL9045	KRL11050
L	2.00±0.20	3.20±0.20	6.30±0.20	7.60±0.20	9.00±0.20	11.00±0.20
W	1.25±0.20	1.60±0.20	3.10±0.20	3.80±0.20	4.50±0.20	5.00±0.20
t	0.50±0.20	0.50±0.20	0.50±0.20	0.50±0.20	0.50±0.20	0.50±0.20
a(1.0mΩ)	0.55±0.20	0.55±0.20	1.20±0.20	1.35±0.20	1.60±0.20	1.60±0.20
a(2.0mΩ~)	0.30±0.20	0.30±0.20	0.50±0.20	0.60±0.20	0.70±0.20	0.80±0.20

Electrical characteristics

Series name		KRL2012				KRL3216				KRL6432				KRL7638				KRL9045				KRL11050			
Power		1W				1.5W				3W				4W				5W				6W			
E series offered		1mΩ STEP			E-6	1mΩ STEP			E-6	1mΩ STEP			E-6	1mΩ STEP			E-6	1mΩ STEP			E-6	1mΩ STEP			E-6
Resistance range (Ω)		1m	2m	3m~9m	10m~500m	1m	2m	3m~9m	10m~500m	1m	2m	3m~9m	10m~500m	1m	2m	3m~9m	10m~500m	1m	2m	3m~9m	10m~500m	1m	2m	3m~9m	10m~500m
Resistance tolerance (%)	±1.0(F)	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○
	±2.0(G)	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—
	±5.0(J)	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—
Temperature coefficient of resistance (ppm/℃)	±50	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○	—	—	○	○
	±100	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—
	±150	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—	○	—	—	—
Operating temperature	C	−55℃~175℃																							
	M	−55℃~155℃																							
Rated ambient temperature (at terminals)	C	120℃ or less																							
	M	100℃ or less																							
Packaging	1,000pcs	○				○				○				○				○				○			
	5,000pcs	○				○				○				○				○				—			

Part numbering system

KRL 2012 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