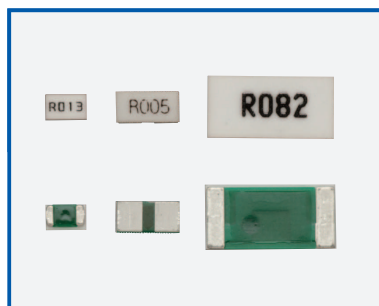


# Metal foil low resistance chip resistors (short-side terminals)

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:  $\pm 100\text{ppm}/^\circ\text{C}$  for  $5\text{m}\Omega \sim 9\text{m}\Omega$ , and  $\pm 50\text{ppm}/^\circ\text{C}$  for  $10\text{m}\Omega \sim$ . 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.

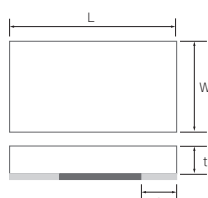
## Applications

- 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	$1.60 \pm 0.20$	$2.00 \pm 0.20$	$3.20 \pm 0.20$	$6.30 \pm 0.20$	$11.0 \pm 0.20$
W	$0.80 \pm 0.20$	$1.25 \pm 0.20$	$1.60 \pm 0.20$	$3.10 \pm 0.20$	$5.00 \pm 0.20$
t	$0.50 \pm 0.20$	$0.50 \pm 0.20$	$0.50 \pm 0.20$	$0.50 \pm 0.20$	$0.65 \pm 0.20$
a (5.0 ~ 7.0m $\Omega$ )	—	$0.40 \pm 0.20$	$1.10 \pm 0.20$	$1.90 \pm 0.20$	$3.60 \pm 0.30$
a (8.0m $\Omega$ ~)	—		$1.10 \pm 0.20$	$1.90 \pm 0.20$	$3.60 \pm 0.30$
a (9.0m $\Omega$ ~)	$0.30 \pm 0.20$	—	$0.50 \pm 0.20$	$1.00 \pm 0.20$	$2.36 \pm 0.30$

### 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		1m $\Omega$ STEP	E-12	1m $\Omega$ STEP	E-12	1m $\Omega$ STEP	E-12
Resistance range ( $\Omega$ )	10m ~ 100m	5m ~ 9m	10m ~ 100m	5m ~ 9m	10m ~ 500m	5m ~ 9m	10m ~ 1000m	5m ~ 9m	10m ~ 1000m
Resistance tolerance (%)	$\pm 1.0$ (F)	○	—	○	—	○	—	○	—
	$\pm 2.0$ (G)	—	○	—	○	—	○	—	○
Temperature coefficient of resistance (ppm/ $^\circ\text{C}$ )	$\pm 50$	○	—	○	—	○	—	○	—
	$\pm 100$	—	○	—	○	—	○	—	○
Operating temperature	C	$-55^\circ\text{C} \sim 175^\circ\text{C}$							
	M	$-55^\circ\text{C} \sim 155^\circ\text{C}$							
Rated ambient temperature (at terminals)	C	$120^\circ\text{C}$ or less							
	M	$100^\circ\text{C}$ or less							
Packaging	1,000pcs	○	○	○	○	○	○	○	○
	5,000pcs	○	○	○	○	○	○	○	○

## Part numbering system

**KRL 1220E-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