

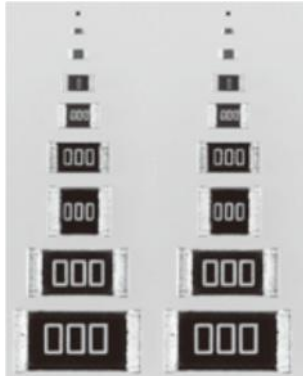
Zero Ohm Jumper Overview Thick Film



There are two main reasons for designers to use Zero-Ohm resistors (Jumper). The first is to avoid using an additional layer when two traces have to cross on the same side of the PCB, the second is to make different circuit configurations using the same PCB layout. The advantage of SMD Jumper is, that they can be placed on the PCB using the same pattern and automated equipment used for standard SMD devices.

Thick Film Jumper

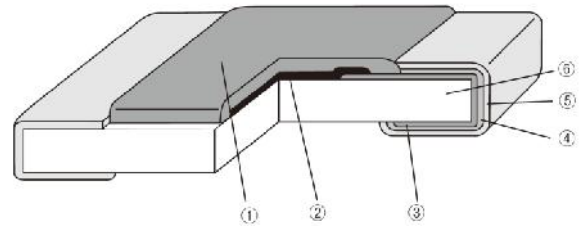
RK73Z Series – SMD Jumper



Product Features

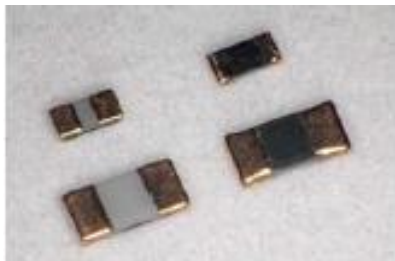
- 01005 to 2512 inch sizes
- 50 m max. resistance value
- AEC-Q200 qualified (Except 01005)
- Current Rating: 01005~0201 \triangleq 0.5 A
0402~0603 \triangleq 1.0 A
0805~2512 \triangleq 2.0 A
- Anti-Sulfuration versions available

Structure



- 1 Protective coating
- 2 Conductive film
- 3 Inner electrode
- 4 Ni plating
- 5 Solder plating
- 6 Ceramic substrate

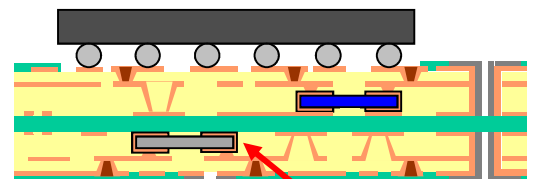
XR73Z Series – Embedded Jumper



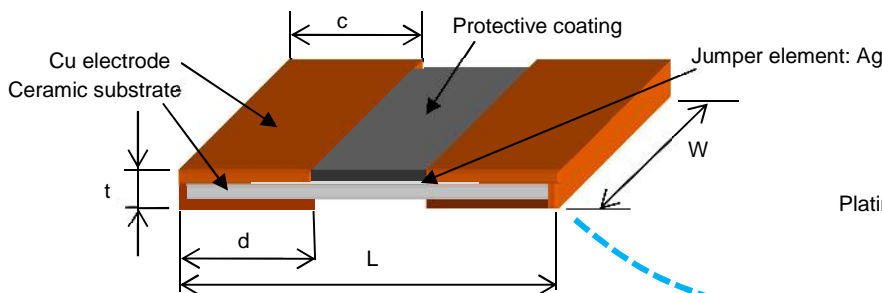
Product Features

- Thick film jumper for mounting inside the PCB or substrate
- Low profile of 0.14 mm height
- Via connection to copper substrate
- 0201 and 0402 inch sizes
- 50 m max. resistance value
- Current rating: 0201 \triangleq 0.5 A
0402 \triangleq 1.0 A

Structure

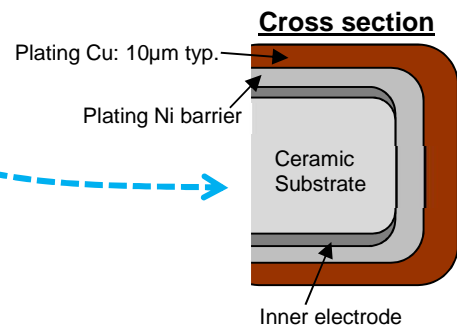


Low profile flat chip jumper



Dimensions (mm)

Size	L	W	t	c	d
0201	0.6±0.03	0.3±0.03	0.13±0.02	0.23±0.03	0.23±0.03
0402	1.0±0.05	0.5±0.05	0.14±0.03	0.28±0.05	0.28±0.05



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Zero Ohm Jumper Overview

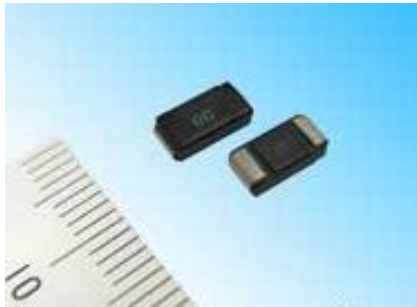
Large Current



In high power applications a conventional Zero-Ohm resistor may be not be able to handle the higher currents. The SLZ and TLRZ series from KOA can carry currents up to 44 A. Additionally, these two series can be used for large current patterns with low impedance requirements.

High Current Jumper

SLZ Series – Molded Jumper

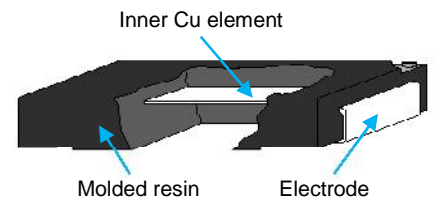


Product Features

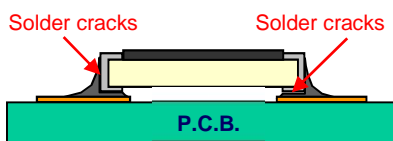
- 44 A rated current in 2512 inch size
- 0.5 mΩ max. resistance value
- +180 °C max. operating temperature
- Stress tolerant construction
- Suitable for reflow, wave and iron soldering
- AEC-Q200 qualified



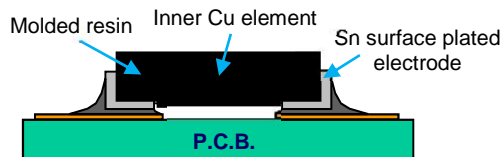
Structure



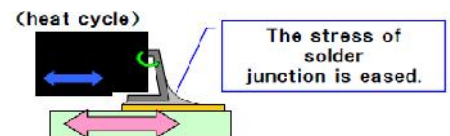
During heat cycling the stress in the solder junctions can be very high due to different thermal expansion coefficients of the PCB and the substrate. The SLZ jumper has flexible metal plate electrodes which reduce this stress.



Standard Flat Chip Resistor



KOA SLZ-type



TLRZ Series – Metal Plate Jumper

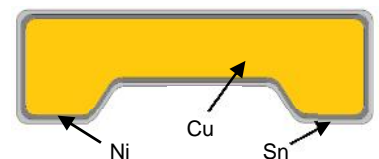


Product Features

- 40 A max. rated current
- 0603, 0805, 1206 inch sizes
- +105 °C rated terminal part temperature
- 0.2 mΩ max. resistance value
- -55 °C to +155 °C
- Low profile
- AEC-Q200 qualified

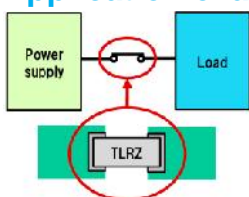


Structure

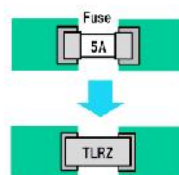


Metal Plate Jumpers offer superior corrosion and heat resistance to thick film resistors. They also allow high currents in very small sizes (e.g. 0603=26 A, 0805=31.6 A; 1206=40 A). The TLRZ jumpers are only suitable for reflow soldering.

Application examples



Analysis in the development phase



Bypass unnecessary functional circuits when the board becomes standardized

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