AEC-Q200 qualified, 1W, 10mΩ - 100mΩ, Wide terminal chip resistor with 75ppm/K T.C.R.

KOAs automotive current sensing chip resistors with wide terminations now achieve T.C.R. ±75ppm/K in size 0612 inch.

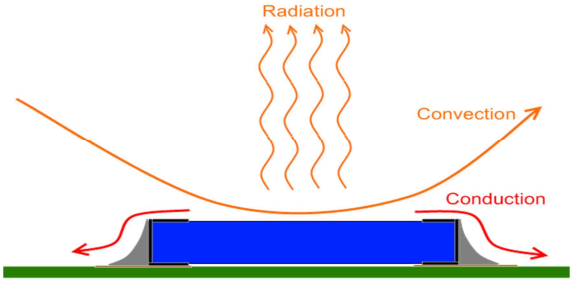
Its 90° rotated design offers several advantages co mpared to standard resistor footprints, such as:

- **Higher reliability in power applications**
- **Improved terminal strength**
- **Lower expansion stress**
- **Lower temperature rise**
- **PCB space saving**

The 1W power rating is double that of a standard 1206 part with terminations on the short side. The better heat dissipation due to these wider terminals helps to save board space.

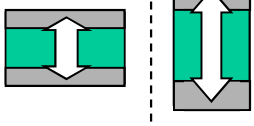
The high terminal strength is due to the large soldering area.
The short distance between the terminals results in significantly less expansion stress in the solder joints.

KOA's new WU73-series, available in 0612 size and in the resistance range 10mΩ to 100mΩ, is suitable for current sensing and offers a better T.C.R. compared to the standard wide terminal series.



The Rated Power of a resistor depends on the maximum available heat transport capability, which mainly relies on heat conduction through the solder joint to the PCB. The temperature dissipation through air convection and radiation can be neglected.
The WU73 flat chip resistor use the long sides of the resistor to give better heat dissipation through the solder junctions.

0612 size:
- 1W power rating
- Short distance between the terminations
- Small mechanical stress at solder fillet
- Low thermal expansion



1206 size:
- 0.5 W power rating
- Longer distance between the terminations
- Stress at solder fillet is higher
- Higher thermal expansion

Features:

- 10 mΩ to 100 mΩ, ±1% tolerance
- 1 W Power rating
- **±100 ppm/K (10mΩ…12mΩ)**
  ±75 ppm/K (13mΩ…27mΩ)
  ±100 ppm/K (30mΩ…100mΩ)
  NEW: Improved T.C.R.
- Space saving
- Excellent heat dissipation characteristics
- Improved solder joint reliability
- Low thermal expansion stress
- Superior temperature and power cycling performance
- AEC-Q200 qualified

Applications:

- Automotive, including 'under the hood' applications such as ECUs
- Power supplies
- DC-DC converters
- Motor controls
- Industrial power controls
- Battery packs
- Consumer electronics

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