Cemented Wirewound Resistor
AC01/03/04/05/07/10/15/20

Technology

The resistor element is a resistive wire which is wound in a single layer on a ceramic rod. Metal caps are pressed over the ends of the rod. The ends of the resistance wire and the leads are connected to the caps by welding. Tinned copper-clad iron leads with poor heat conductivity are employed permitting the use of relatively short leads to obtain stable mounting without overheating the solder joint. The resistor is coated with a green silicon cement which is not resistant to aggressive fluxes. The coating is non-flammable, will not drip even at high overloads and is resistant to most commonly used cleaning solvents, in accordance with “MIL-STD-202E, method 215” and “IEC 60068-2-45”.

Features

- Wirewound technology;
- General purpose resistors;
- High power dissipation in small volume;
- High pulse load handling capabilities;
- Various forming styles available;
- High stability, reliability and uniformity characteristics;
- Various packing and taping configurations.

Mounting

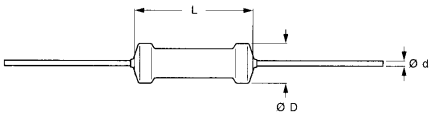
The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines. For AC01, a radial taped version is available, economizing space on the PCB. The double kink version offers great advantages for manual insertion, improving the mounting stability for the customer. This version has a real *snap in* function to fix the resistor in the PCB without weakening the connecting leads.

Electrical Characteristics

DESCRIPTION	AC 01	AC 03	AC 04	AC 05	AC 07	AC 10	AC 15	AC 20
Resistance range	0.1 to 2.4kΩ	0.1 to 5.1kΩ	0.1 to 6.8kΩ	0.1 to 8.2kΩ	0.1 to 15kΩ	0.68 to 27kΩ	0.82 to 39kΩ	1.2 to 56kΩ
Tolerance and series	5%, E-24							
Maximum dissipation at 40ºC (Pmax)	1W	3W	4W	5W	7W	10W	15W	20W
Maximum permissible body temperature	350ºC							
Temperature coefficient	-80ppm/ºC / +140ppm/ºC [1]							
Basic specifications	IEC 60115-1							
Operating temperature	-40ºC to +200ºC							
Limiting Voltage	$V = \sqrt{Pn \times R}$							
Stability after:								
Life (1000h)	ΔR/R max.: ±5% +0.1Ω							
Climatic tests	ΔR/R max.: ±1% +0.05Ω							
Soldering	ΔR/R max.: ±0.5% +0.05Ω							
Short time overload	ΔR/R max.: ± 2% +0.1Ω							

[1] For R < 10Ω: TC = ±600ppm/ºC

Mechanical Data



TYPE	ϕD max.	L max.	ϕd
AC01	4.3	10.0	0.8±0.03
AC03	5.5	13.0	0.8±0.03
AC04	5.7	17.0	0.8±0.03
AC05	7.5	17.0	0.8±0.03
AC07	7.5	25.0	0.8±0.03
AC10	8.0	44.0	0.8±0.03
AC15	10.0	51.0	0.8±0.03
AC15	10.0	67.0	0.8±0.03

Dimensions in mm

Market Segments and Applications

Industry sector	Application segment	End-user equipment
Industrial	Controls	Power supplies
Telecom	Data Communication	Line protection resistor Power supplies
Consumer	Sound & Vision	Audio Desks TV VCR
	Lighting	Ballast equipment
Automotive	Dashboard	Dashboard electronics

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