AP101 100W TO-247 High Power Resistors FIRCUL

- 100 watts at 25°C case temperature heat sink mounted
- TO-247 style power package
- Single screw mounting to heat sink
- Moulded case for protection
- Electrically isolated case
- Non-Inductive design
- RoHS Compliant



Characteristics

Tolerance (Code): $\pm 1\%$ (F), $\pm 5\%$ (J), $\pm 10\%$ (K)

Operating temperature: -65°C to +175°C

Temperature coefficient: ± 50ppm/°C to ± 300ppm/°C (re to ohmic values), referenced to 25°C, ΔR taken at +105°C

Operating voltage: 700V max

Dielectric strength: 1800Vac 60 seconds, ΔR±0.15%

Insulation resistance: 10G min Maximum torque: 0.9 Nm

Free air: 25°C, rated at 3.5W

Load Life ΔR±1.0%, Rated power, 2,000 hours
Solderability 90% min. coverage, 245±5°C for 3 seconds

Momentary Overload $\Delta R \pm 0.5\%$, 1.5 times rated power and V (dc) \leq 1.5 VMax. for 5 seconds

Moisture resistance $\Delta R \pm 0.5\%$, -10°C - +65°C, RH>90%, cycle 240 hours

Thermal Shock $\Delta R \pm 0.5\%$, -65°C - 150°C, 100 cycles

Terminal Strength Δ R±0.2%, (Pull Test) 2.4N Vibration, High Frequency Δ R±0.4%, 20g peak

Ordering Procedure

Standard Resistor: Series, Resistance Value, Tolerance Code,

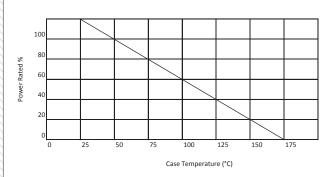
TCR

eg: AP101 10K J 50ppm

Electrical Specifications

Value Range	Tolerance Pref. Value Range	TCR (ppm/°C)
R05 - 1R	± 1% (F)	Not specified
> 1R - 3R	E12, E24, E96	± 300ppm/°C
> 3R - 10R	± 5% (J)	± 100ppm/°C, ± 200ppm/°C
> 10R - 100K	E12, E24 ± 10% (K) E12	± 50ppm/°C, ± 100ppm/°C, ± 200ppm/°C

Derating Curve



The case temperature is to be used for the definition of the applied power limit

The case temperature measurement must be made with a thermocouple contacting
the centre of the component mounted on the designed heat sink

Thermal grease should be applied properly

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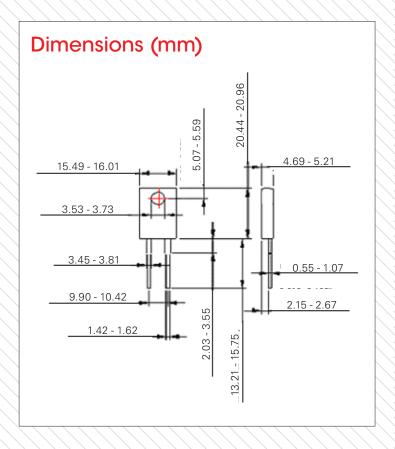
www.arcolresistors.com

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It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

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