# AP101 100W TO-247 High Power Resistors FRCOL

- 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):	± 1% (F), ± 5% (J), ± 10% (K)	
Operating temperature:	-65°C to +175°C	
Temperature coefficient:	$\pm$ 50ppm/°C to $\pm$ 300ppm/°C (re to ohmic values), referenced to 25°C, $\Delta$ R taken at +105°C	
Operating voltage:	700V max	
Dielectric strength:	1800Vac 60 seconds, $\Delta R \pm 0.15\%$	
Insulation resistance:	10G min	
Maximum torque:	0.9 Nm	
Free air:	25°C, rated at 3.5W	
Load Life	$\Delta R \pm 1.0\%$ , Rated power, 2,000 hours	
Solderability	90% min. coverage, 245±5°C for 3 seconds	
Momentary Overload	$\Delta R\pm0.5\%, 1.5$ times rated power and V (dc) $\leq 1.5VMax.$ for 5 seconds	
Moisture resistance	ΔR±0.5%, -10°C - +65°C, RH>90%, cycle 240 hours	
Thermal Shock	ΔR±0.5%, -65°C - 150°C, 100 cycles	
Terminal Strength	ΔR±0.2%, (Pull Test) 2.4N	
Vibration, High Frequency	ΔR±0.4%, 20g peak	

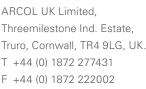
## **Ordering Procedure**

Standard Resistor: Series, Resistance Value, Tolerance Code, TCR

eg: AP101 10K J 50ppm

## **Electrical Specifications**

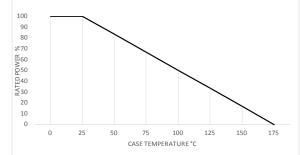
Value Range	Tolerance Pref. Value Range	TCR (ppm/°C)
R05 - 1R	± 1% (F)	Not specified
> 1R - 3R	E12, E24, E96	± 300ppm/°C
> 3R - 10R	± 5% (J)	± 100ppm/°C, ± 200ppm/°C
> 10R - 100K	E12, E24 ± 10% (K) E12	± 50ppm/°C, ± 100ppm/°C, ± 200ppm/°C



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# Derating Curve



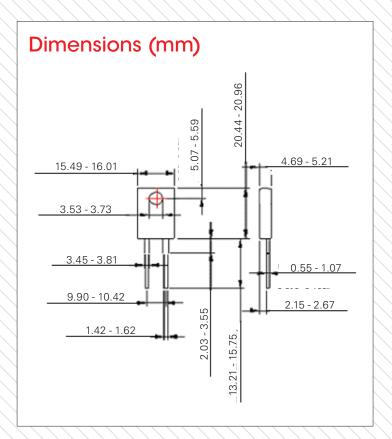
The case temperature is to be used for the definition of the applied power limit The case temperature measurement must be made with a thermocouple contacting the centre of the component mounted on the designed heat sink Thermal grease should be applied properly

The information contained herein does not form part of a contract and is subject to change without notice. Arcol operate a policy of continual product development, therefore, specifications may change.

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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