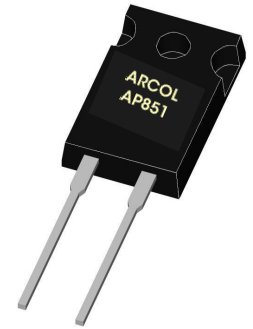


# AP851 50W TO-220 High Power Resistors



- 50 watts at 25° C case temperature heat sink mounted
- TO-220 style power package
- Single screw mounting to heat sink
- Improved heat dissipation through direct substrate mounting
- RoHS compliant

## Characteristics

Value Range	TCR (PPM/°C)			
	±0.5%	±1%	±5%	±10%
1R - 3R		±300	±300	±300
3R - 10R		±100 ±200	±100 ±200	±100 ±200
10R - 10K	±50 ±100 ±200	±50 ±100 ±200	±50 ±100 ±200	±50 ±100 ±200

Operating Voltage: 420V Max.  
 Dielectric Strength: 1800VAC  
 Insulation Resistance: 10G min.  
 Lead material: tinned copper  
 Maximum torque: 0.9 N-m  
 Without a heat sink, when in free air at 25°C, the AP851 is rated for 2.25W  
 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

Item	Requirement	Test Method
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	Referenced to 25°C, ΔR taken at +105°C
Load Life	ΔR±1.0%	Rated power, 2,000 hours
Solderability	90% min. coverage	245±5°C for 3 seconds
Short time overload	ΔR±0.3%	2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds
Damp heat (cycled)	ΔR±0.5%	40±2°C 90-95% RH max working voltage for 1000 hours with 1.5 hours on and 0.5 hours off
Thermal Shock	ΔR±0.3%	-65°C - 150°C, 100 cycles
Terminal Strength	ΔR±0.2%	(Pull Test) 2.4N
Vibration, High Frequency	ΔR±0.2%	20g peak

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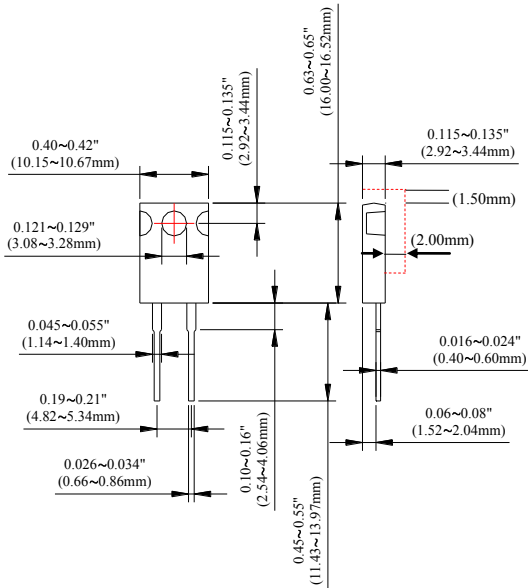
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It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

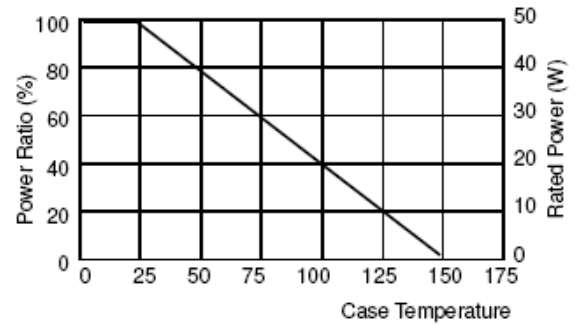
# AP851 50W TO-220 High Power Resistors



## Dimensions



## Derating Curve



## Ordering Procedure

Standard resistor: Series, Resistance, Tolerance Code, TCR

eg: AP851 10R J 50ppm

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