AP821 20 Watts TO-220 High Power Resistors

A high power TO-220 style resistor package designed for high frequency emitter circuits in switching power supplies. Also used in voltage regulation and low energy pulse loading.

- 20 Watts at 25˚C case temperature on heat sink
- Moulded case for protection and easy to mount
- Non-inductive design
- Electrically isolated case
- RoHS Compliant

Characteristics

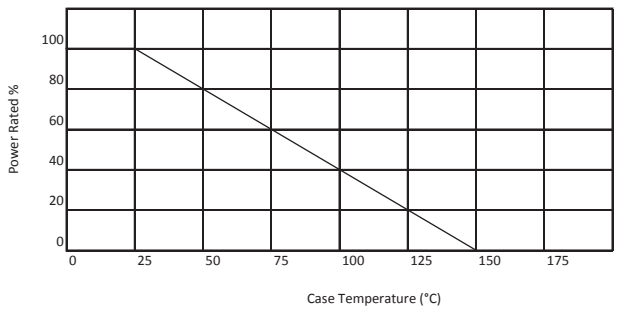
Power rating:	2.25 Watts in free air
Operating voltage:	350V max
Dielectric strength:	1800Vac
Insulation resistance:	10GΩ min
Working temperature range:	-65˚C to +150˚C
Temperature coefficient:	As specified, referenced to 25˚C, ΔR taken at +105˚C
Overload:	ΔR ±0.3%, 2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds
Load life:	ΔR ±1.0%, 2000 hours at rated power
Damp heat with load:	ΔR ±0.5%, 40 ±2˚C, 90 - 95% R.H max working voltage for 1000 hours with 1.5 hours "ON" and 0.5 hours "OFF"
Solderability:	90% min coverage, 245 ±5˚C for 3 seconds
Thermal shock:	ΔR ±0.3%, -65˚C - 150˚C, 100 cycles
Terminal strength:	ΔR ±0.2%, 2.4 N
Vibration and high frequency:	ΔR ±0.2%, 20g peak

Electrical Specifications

Resistance Value Range	Available Tolerance & Pref. Value Ranges	Available TCR
R05 - 1R	J (±5%) K (±10%)	Not specified
1R02 - 3R	F (±1%) , J (±5%) , K (±10%)	±300ppm/˚C
3R01 - 10R		±100ppm/˚C ±200ppm/˚C
10R2 - 10K	D (±0.5%) F (±1%) J (±5%) K (±10%)	±50ppm/˚C ±100ppm/˚C ±200ppm/˚C

Preferred value ranges:
F (±1%) - E96 , J (±5%) - E24, K (±10%) - E12

Derating Curve



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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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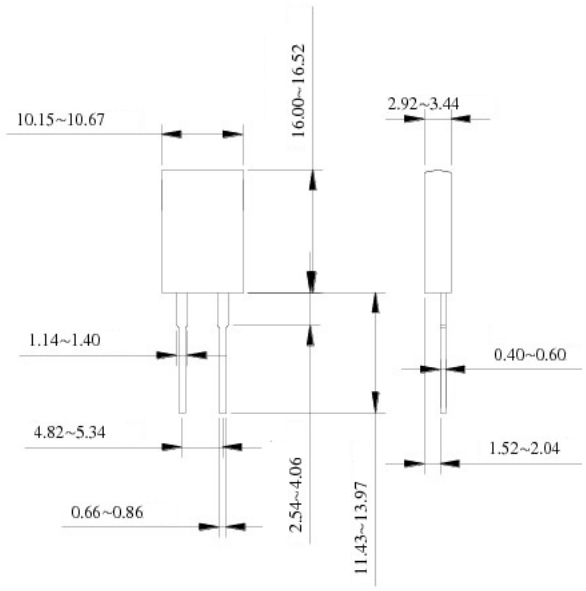
Dimensions (mm)



Ordering Procedure

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

eg: AP821 10K J ± 50ppm/°C

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