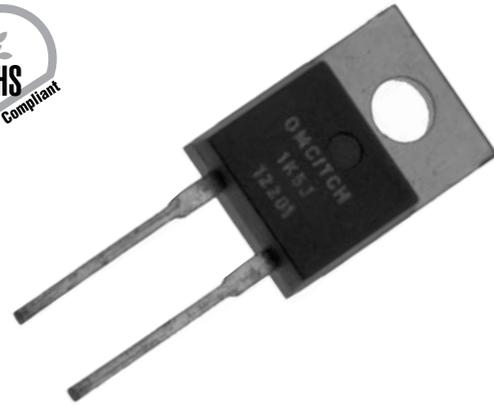


TCH Series

35 Watt TO220 Package Thick Film Power



Ohmite's TCH35 TO220 package resistor provides 35W of steady state power when properly used in today's well defined heat sink applications.

These very low inductance resistors are built under proprietary processes that deliver more power handling capability than other TO220 package resistors of similar size.

Standard terminal forms are provided for manual or automatic insertion.

A single screw mounting tab connects to the heat sink and should be accompanied by the use of a thermal compound. The TCH35 Series offers a low thermal resistance to the heat sink of <math><4.28^{\circ}\text{C}/\text{W}</math>.

FEATURES

- 35W Power Rating @ 25°C
- Very Low Inductance Design
- Single Screw Mounting
- Low Thermal Resistance to Heat Sink @ $R_{\text{TH}} < 4.28^{\circ}\text{C}/\text{W}$
- Resistance Element is Electrically Insulated from Metal Heat Sink Mounting Tab

APPLICATIONS

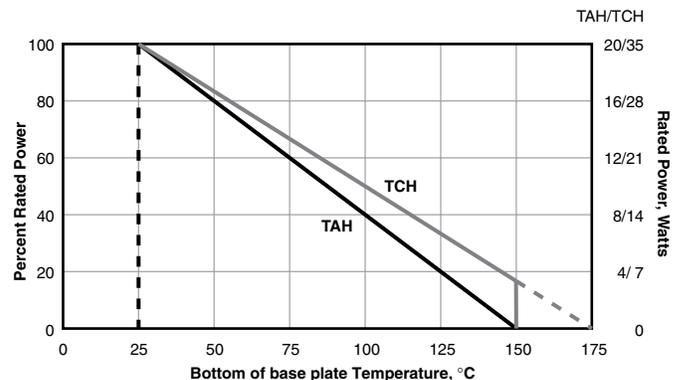
- Switching Power Supplies
- Snubbers
- High Frequency
- Voltage Regulation
- Low Energy Pulse Loading

CHARACTERISTICS

Resistance Range	0.05Ω to 10KΩ (higher values on request, lower values subject to derating)
Resistance Tolerance:	± 5% standard; ± 1% available on request
Temperature Coefficient	Referenced to 25°C, ΔR taken at +105°C 10Ω and above: ±50 ppm°C For under 10Ω: 3R to 9R9: 100ppm 1R to 2R9: 300ppm 0R1 to 0R99: 700ppm 0R05 to 0R09: 1000ppm
Max. Operating Voltage	350V
Dielectric Strength	1800 VAC
Insulation Resistance	10GΩ min.
Momentary Overload	2x rated power for 5 seconds as long as the applied voltage ≤ 1.5 times the continuous operating voltage, where ΔR ±(0.3% + 0.01Ω) max
Terminal Material	Copper
Terminal Plating	Lead Free Solder (97% Tin, 3% Silver)
Maximum Torque	0.9 Nm
Power Rating	35 Watts @ 25°C case temperature; see derating curve, below
Working Temperature Range	-55°C to +175°C
Solder Process	The TCH35 cannot exceed 260°C for more than 10 seconds during soldering process

Test	Condition	Result ΔR
Load Life	MIL-R-39009, 2000 Hours @ Rated Pwr	±(1.0% +0.01) Ω
Thermal Shock	MIL-R-STD-202, Method 107, Cond. F	±(0.3% +0.01) Ω max
High Freq Vibration	MIL-R-STD-202, Method 204, Cond. D	±(0.2% +0.01) Ω max
Terminal Strength	MIL-R-STD-202, Method 211, Cond. A (Pull Test) 2.4N	±(0.2% +0.01) Ω max
Moisture Resistance	MIL-R-STD-202, Method 106	± (0.5% +0.01) Ω max

Derating



(continued)

