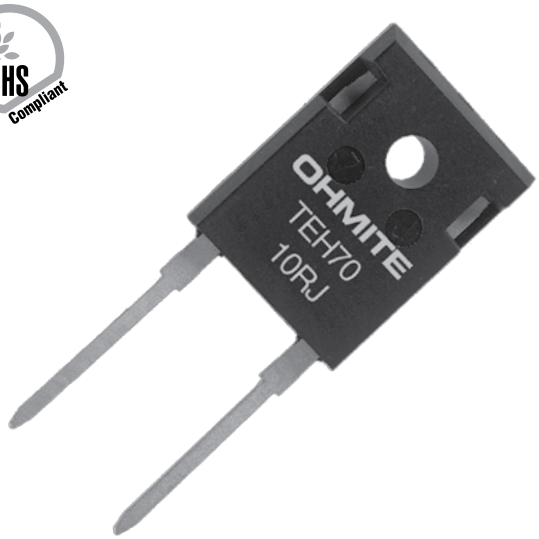
TEH70 Series

70 Watt TO247 Package
Thick Film Power



FEATURES

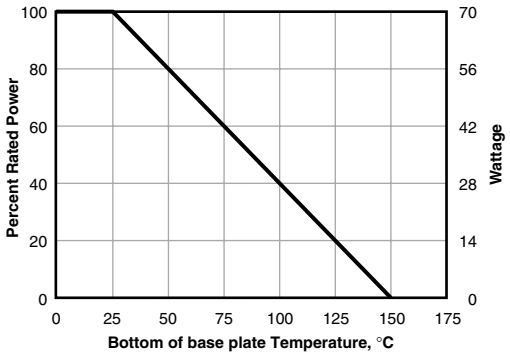
- 70 Watt power rating at 25°C case temperature
- Non-inductive performance
- Low thermal resistance
- RoHS compliant design
- Two or three terminal versions available
- Heat sink can be grounded through middle terminal (P style)

CHARACTERISTICS

Resistor	thick film on alumina
Lead	solder coated phosphor bronze
Solder	100% Sn
Case	high temperature plastic
P Package	middle terminal is electrically connected to header and insulated from left and right terminals
M Package	no middle terminal
Derating	linear, 100% at 25°C to 0% at 150°C
Resistance range	2Ω-10KΩ
Max. working voltage	500V or Ohm's Law limited
Thermal Resistance	1.79°C/W
Temperature Coefficient	2Ω-10Ω: ±100ppm 10Ω-10KΩ: ±50ppm
Insulation Resistance	400 MΩ
Short time overload	2x rated power for 5 sec., not to exceed 1.5x max. working voltage
Dielectric Strength	2000 VDC

Test	Conditions Of Test	Performance
Load life	1000 hrs @ rated power	±1% ΔR
Moisture resistance	MIL -STD-202, method 106	±0.5% ΔR
Short time overload	2x rated power for 5 sec., not to exceed 1.5x max. working voltage	±0.3% ΔR
Solderability	MIL-STD-202, method 208	
Thermal shock	MIL-STD-202, method 170, cond. F	±0.2% ΔR

Derating



THIS PRODUCT IS DESIGNED FOR USE WITH PROPER HEATSINKING.

Maximum base plate temperature of the resistor must be monitored and kept within specified limits to establish the power rating. Best technique is to attach a thermocouple to the side of the base plate of the resistor. Temperature of plastic housing or heat sink cannot be used to establish rating of the resistor.

(continued)

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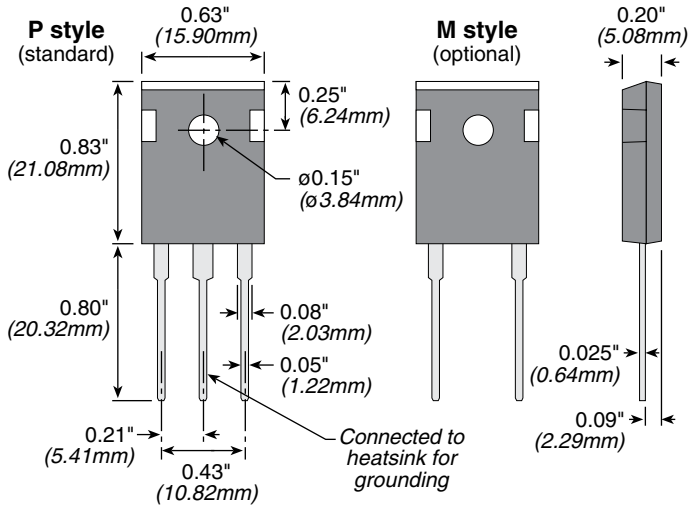
DIMENSIONS

(in./mm)



ORDERING INFORMATION

Package Code
P = three terminals
M = two terminals

RoHS Compliant
Non-compliant
version unavailble

T E H 7 0 P 1 0 R 0 J E

Series

Ohms
R = Decimal
Example:
10R2 = 10.2 ohms
100R = 100 ohms
15K0 = 15,000 ohms

Tolerance
J = 5%

Standard Part Numbers

Ohms	P-type 3-terminal	M-type 2-terminal
2	TEH70P2R00JE	TEH70M2R00JE
3	TEH70P3R00JE	TEH70M3R00JE
4	TEH70P4R00JE	
5	TEH70P5R00JE	TEH70M5R00JE
7.5	TEH70P7R50JE	TEH70M7R50JE
10	TEH70P10R0JE	TEH70M10R0JE
15	TEH70P15R0JE	TEH70M15R0JE
20	TEH70P20R0JE	
24	TEH70P24R0JE	TEH70M24R0JE
33		TEH70M33R0JE
39		TEH70M39R0JE
47	TEH70P47R0JE	TEH70M47R0JE
68	TEH70P68R0JE	TEH70M68R0JE
75		TEH70M75R0JE
100	TEH70P100RJE	TEH70M100RJE
150	TEH70P150RJE	TEH70M150RJE
270	TEH70P270RJE	TEH70M270RJE
470	TEH70P470RJE	TEH70M470RJE
680		TEH70M680RJE
750	TEH70P750RJE	TEH70M750RJE
1000	TEH70P1K00JE	TEH70M1K00JE
1500	TEH70P1K50JE	TEH70M1K50JE
2000	TEH70P2K00JE	TEH70M2K00JE
3000		TEH70M3K00JE
5000	TEH70P5K00JE	TEH70M5K00JE
7500	TEH70P7K50JE	
10000		TEH70M10K0JE