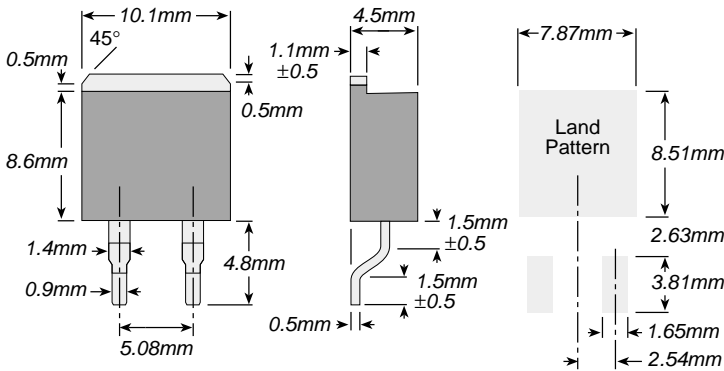


TDH35 Series

TO220 35 Watt Thick Film Power Resistors for Surface Mount, Including Metal Tab



TO220 style power package for surface mounting applications; 35W power rating at 25°C case temperature

Soldering note: During surface mount soldering the soldering temperature profile must not cause the metal tab of this device to exceed 245°C!

PERFORMANCE CHARACTERISTICS

Derating	100% @ 25°C to 0% @ 150°C curve referenced to case temperature	
Dielectric Strength	1,800VAC	
Max. Mounting Torque	0.9Nm	
Operating Temperature Range	-55°C to +150°C	
Temperature Coefficient	10Ω and above, ± 50ppm/°C, referenced to 25°C, ΔR taken at +105°C. Between 1Ω and 10Ω, ± (100ppm+0.002Ω)/°C, referenced to 25°C, ΔR taken at +105°C.	

TEST DATA

Load Life	(MIL-R-39009, 2,000 hours	ΔR ±(1.0% +0.01Ω)
Moisture Resistance	(MIL-Std-202, Method 106)	ΔR =(0.5% +0.01Ω) max.
Short Time Overload	(2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds)	ΔR ±(0.3% + 0.01Ω) max.
Thermal Shock	(MIL-Std-202, Method 107, Cond. F)	ΔR =(0.3% + 0.01Ω) max.
Terminal Strength	(MIL-Std-202, Method 211, Cond. A (Pull Test) 2.4N)	ΔR =(0.2% + 0.01Ω) max.
Vibration, High Frequency	(MIL-STD-202, method 211, cond. A (pull test) 2.4N)	ΔR =(0.2% + 0.01Ω) max.

FEATURES

- 35 Watt power rating at 25°C
- SMD - TO-220 package configuration
- Heat resistance to cooling plate: $R_{th} < 4.28 \text{ }^\circ\text{K/W}$
- A molded case for environmental protection.
- Resistor element is electrically insulated from the metal sink tab.

SPECIFICATIONS

Material

Lead Material: German Silver (Alpacca)

Electrical

Resistance Range: 0.1Ω to 10KΩ
other values on request

Tolerance: ±1% to ±10% (0.5% on request)

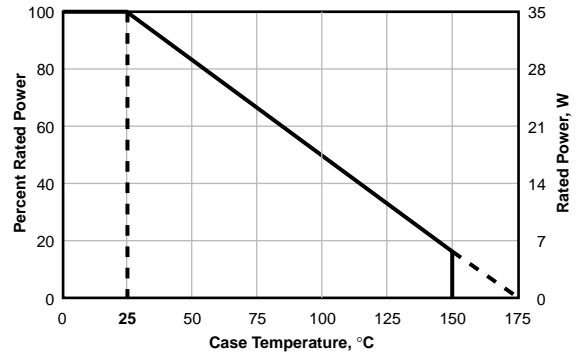
Max. Operating Voltage: 350V

Insulation Resistance: 10GΩ min.

Power Rating: Depends upon case temperature. See Derating Curve.

Working Temperature Range: -55°C to +175°C

DERATING



Derating (thermal resistance): 0.23W/°K (4.28°K/W). The case temperature is to be used for purposes of establishing the applied power limit. The case temperature measurement must be made with a thermocouple contacting the center of the component mounted on the designed heat sink. Thermal grease should be applied properly.

ORDERING INFORMATION

TDH35PR100J

Style

Ohms

Tolerance

R = Decimal

F = 1%

Example:

J = 5%

R100 = 0.10

K = 10%

1R00 = 1.0

10K0 = 10.000