



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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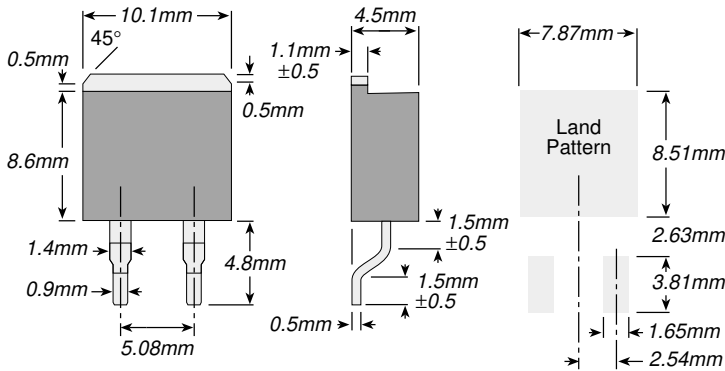
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TDH35 Series

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)

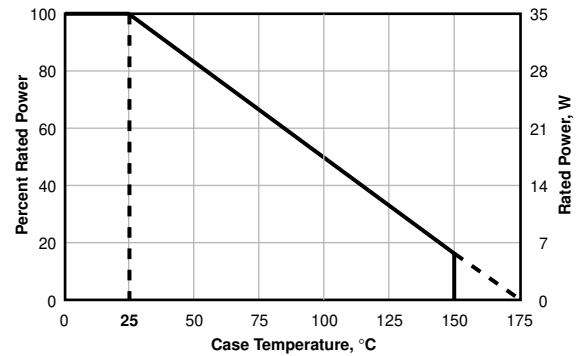
Max. Operating Voltage: 350V

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