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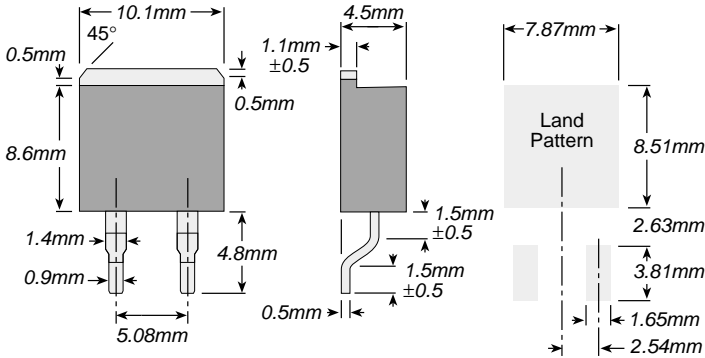
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# TDH35 Series

## T0220 35 Watt Thick Film Power Resistors for Surface Mount, Including Metal Tab



T0220 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

<b>Derating</b>	100% @ 25°C to 0% @ 150°C curve referenced to case temperature
<b>Dielectric Strength</b>	1,800VAC
<b>Max. Mounting Torque</b>	0.9Nm
<b>Operating Temperature Range</b>	-55°C to +150°C
<b>Temperature Coefficient</b>	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

<b>Load Life</b>	(MIL-R-39009, 2,000 hours)	ΔR ±(1.0% +0.01Ω)
<b>Moisture Resistance</b>	(MIL-Std-202, Method 106)	ΔR =(0.5% +0.01Ω) max.
<b>Short Time Overload</b>	(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.
<b>Thermal Shock</b>	(MIL-Std-202, Method 107, Cond. F)	ΔR =(0.3% + 0.01Ω) max.
<b>Terminal Strength</b>	(MIL-Std-202, Method 211, Cond. A (Pull Test) 2.4N)	ΔR =(0.2% + 0.01Ω) max.
<b>Vibration, High Frequency</b>	(MIL-STD-202, method 211, cond. A (pull test) 2.4N)	ΔR =(0.2% + 0.01Ω) max.

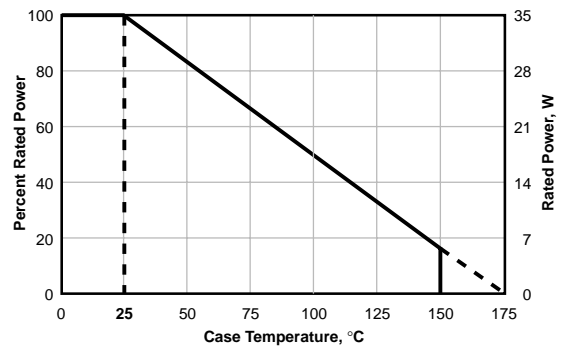
### FEATURES

- 35 Watt power rating at 25°C
- SMD - TO-220 package configuration
- Heat resistance to cooling plate: Rth <math>\leq 4.28 \text{ }^\circ\text{K/W}</math>
- 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**

T	D	H	3	5	P	R	1	0	0	J
Style					Ohms					Tolerance
					R = Decimal					F = 1%
					Example:					J = 5%
					R100 = 0.10					K = 10%
					1R00 = 1.0					
					10K0 = 10.000					

