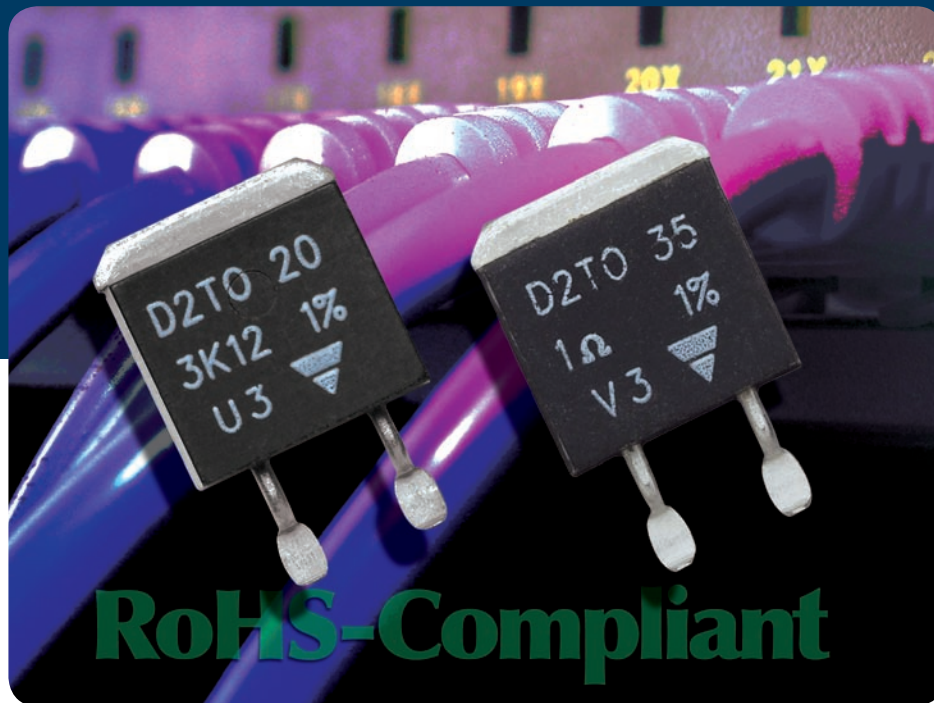




THICK FILM RESISTOR

D2TO20, D2TO35



TO263 (D2 Pack) 20- and 35-Watt Power Thick Film Resistors

KEY BENEFITS

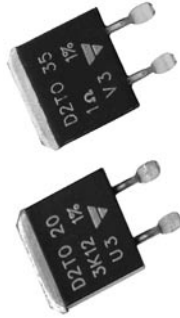
- Standard TO263 (D2 Pack) package
- Wide ohmic value range: from R01 in 1 % tolerance up to 550 k Ω
- Non-inductive
- RoHS-compliant
- Compliant with high-temperature (260 °C) soldering profile

APPLICATIONS

- Power supply
- Current sensing
- Power conversion
- High-speed switching
- Snubbers
- RF applications

Datasheet is available on our web site at www.vishay.com
for D2TO20 - <http://www.vishay.com/doc?51055>
for D2TO35 - <http://www.vishay.com/doc?51058>

D2TO20 and D2TO35 Surface-Mounted Power Resistor Thick Film Technology

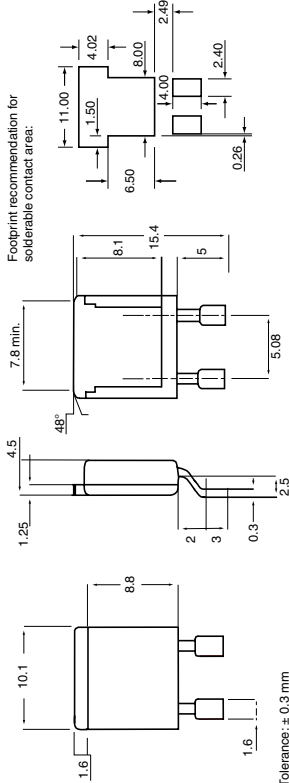


FEATURES

- 20 W and 35 W at 25 °C case temperature
- Surface mounted resistor - TO-263 (D²PAK) style package
- Wide resistance range from 0.01 Ω to 550 kΩ
- Non inductive
- RoHS compliant
- Resistor isolated from metal tab
- Solder reflow secure at 270 °C/10 s



DIMENSIONS in millimeters



Tolerance: ± 0.3 mm

Notes

- For the assembly on board, we recommend the lead (Pb)-free thermal profile as per J-STD-020C
- Power dissipation is 2.8 W at an ambient temperature of 25 °C when mounted on a double sided copper board using FR4 standard, 70 μm of copper, 39 x 30 x 1.6 mm.

ELECTRICAL SPECIFICATIONS	
Resistance Range	0.01 Ω to 550 kΩ
Tolerances (Standard)	± 1 % to 10 %
Power Rating and Thermal Resistance	20 W and 35 W at 25 °C (case temperature) R _{th(j-c)} : 6.5 °C/W and 4.28 °C/W
Temperature Coefficient	See Special Features table
Limiting Element Voltage	250 V Standard: ± 150 ppm/°C
Dielectric Strength IEC 60115-1	2000 V _{rms} - 1 min - 10 mA max. (between terminals and board)
Insulation Resistance	≥ 10 ⁸ MΩ
Inductance	≤ 0.1 μH
Critical Resistance	3.12 KΩ

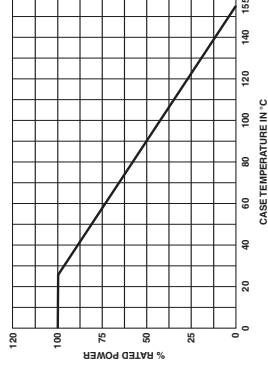
MECHANICAL SPECIFICATIONS	
Mechanical Protection	Molded
Resistive Element	Thick film
Substrate	Alumina
Connections	Tinned copper
Weight	2.2 g max.

ENVIRONMENTAL SPECIFICATIONS	
Temperature Range	-55 °C to 155 °C (175 °C for DFTO35)
Flammability	IEC 60695-11-5
2 applications: 30 s separated by 60 s	

DIMENSIONS	
Standard package	TO-263 S ¹ W ¹ (D ² PAK)

POWER RATING

The temperature of the case should be maintained within the limits specified.



SAP PART NUMBERING GUIDELINES

GLOBAL MODEL	SIZE	LEADS	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD (Pb)-FREE
D2TO	020, 035	C = Surface mount	The first four digits are significant figures and the last digit specifies the number of zeros to follow. F designates decimal point. 48770 = 48.7 Ω 48701 = 48.700 Ω 10002 = 100.000 Ω R0100 = 0.01 Ω R6800 = 0.68 Ω 27000 = 27.00 Ω = 2K7 Ω	F = 1 % G = 2 % J = 5 % K = 10 %	R = Reel 500 pieces T = Tube 50 pieces	E3 = Pure tin

Revision 10-Apr-08

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For technical questions, contact sfer@vishay.com