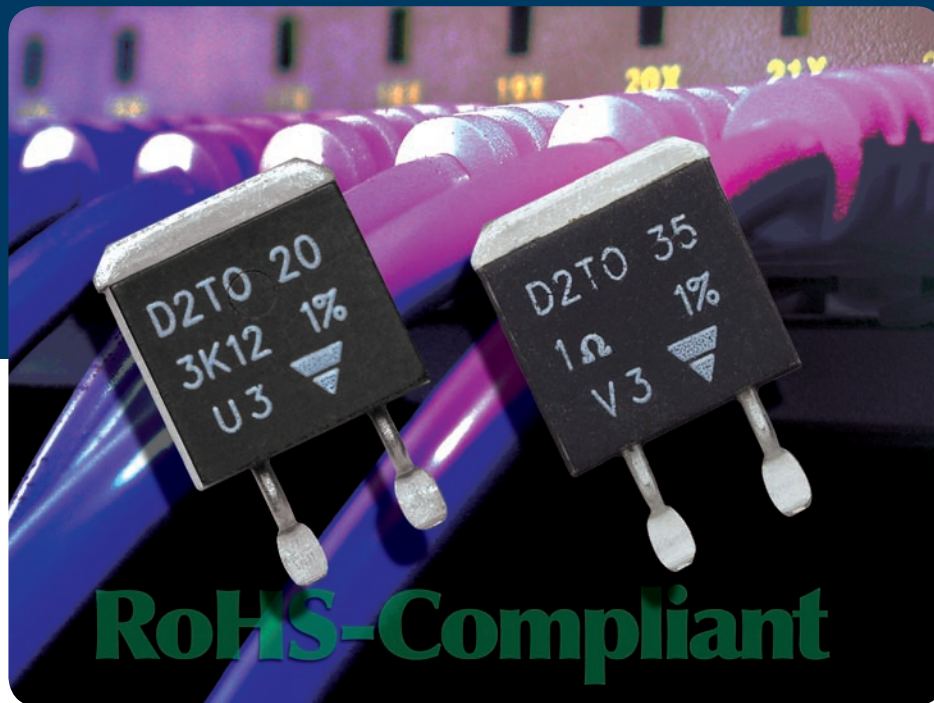




THICK FILM RESISTOR

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

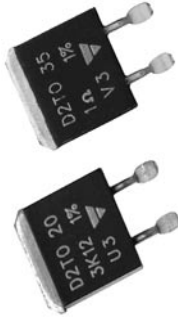
- Power supply
- Current sensing
- Power conversion
- High-speed switching
- Snubbers
- RF applications

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>

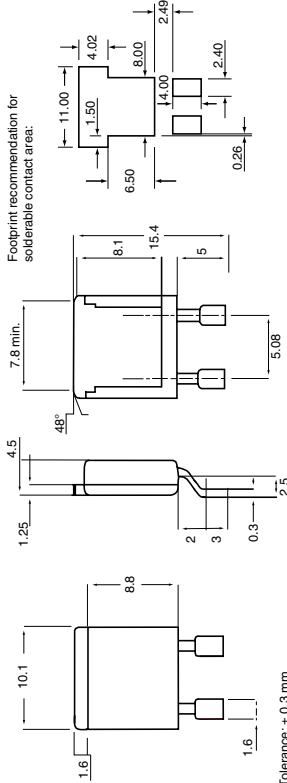
D2TO20 and D2TO35 Surface-Mounted Power Resistor Thick Film Technology

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) $R_{th}(j-c): 6.5 \text{ }^{\circ}\text{C/W}$ and $4.28 \text{ }^{\circ}\text{C/W}$
Temperature Coefficient	See Special Features table
Limiting Element Voltage	250 V Standard: ± 150 ppm/°C
Dielectric Strength IEC 60115-1	$2000 V_{rms} - 1 \text{ min} - 10 \text{ mA max.}$ (between terminals and board)
Insulation Resistance	$\geq 10^8 \text{ M}\Omega$
Inductance	$\leq 0.1 \text{ }\mu\text{H}$
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

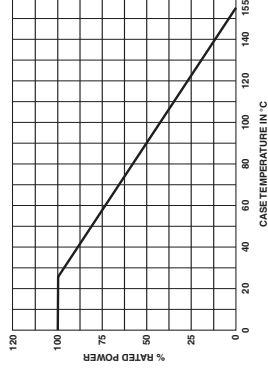
Temperature Range	-55 °C to 155 °C (175 °C for DFTO35)
Flammability	IEC 60695-11-5
2 applications: 30 s separated by 60 s	

DIMENSIONS

Standard package	TO-263 S/1e (D ² PAK)
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POWER RATING

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



SAP PART NUMBERING GUIDELINES

D	2	T	O	0	2	0	C	R	2	0	0	0	0	0	0	0	0	0	0
GLOBAL MODEL	D2TO	SIZE	020, 035	LEADS	C = Surface mount	OHMIC VALUE				TOLERANCE				PACKAGING		LEAD (Pb)-FREE			
The first four digits are significant figures and the last digit specifies the number of zeros to follow. F designates decimal point.						F = 1 % G = 2 % J = 5 % K = 10 %				R = Reel 500 pieces T = Tube 50 pieces		E3 = Pure tin							
4870 = 48.7 Ω 48701 = 48.700 Ω 10020 = 100.000 Ω R0100 = 0.01 Ω R6800 = 0.68 Ω 27000 = 27.00 Ω = 2K7 Ω																			

Revision 10-Apr-08

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