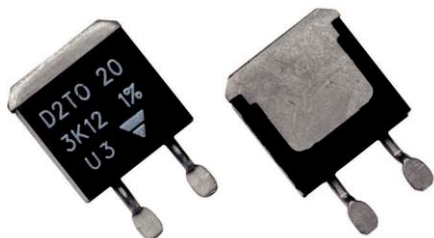


Surface Mounted Power Resistor Thick Film Technology

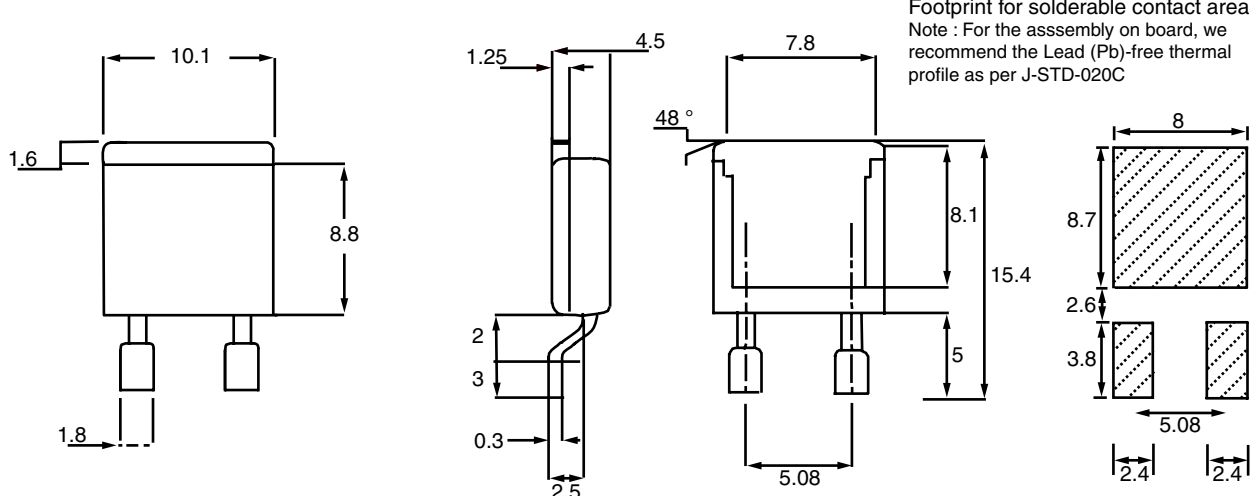


FEATURES

- 20 Watt at 25 °C on the board
- Surface mounted resistor - TO - 263 (D2 PAK) style package
- Wide resistance range from 0.01 Ω to 550 k Ω
- Non Inductive
- RoHS compliant
- Resistor isolated from Metal Tab
- Support soldering temperature of 260 °C



DIMENSIONS in millimeters



ELECTRICAL SPECIFICATIONS

Resistance Range	0.01 Ω to 550 K Ω
Tolerances (standard)	$\pm 1\%$ to 10 %
Dissipation and Associated:	On board
Power Rating and Thermal Resistance	20 W at 25 °C $R_{TH} (j-c) : 6.5\text{ }^{\circ}\text{C/W}$
Temperature Coefficient	See Special Features table
Standard	$\pm 150\text{ ppm}/^{\circ}\text{C}$
Limiting Element Voltage	250 V
Dielectric Strength Mil STD 202	2000 Vrms - 1 minute - 10 mA max (Between Terminals and Heatsink)
Insulation Resistance	$\geq 10^6\text{ M}\Omega$
Inductance	$\leq 0.1\text{ }\mu\text{H}$
Critical Resistance	3.12 K Ω

SPECIAL FEATURES

Resistance Values	≥ 0.010	≥ 0.015	≥ 0.1	≥ 0.5
Tolerances	$\pm 1\%$ at $\pm 10\%$			
Typical temperature Coefficient (- 55 °C + 150 °C)	$\pm 900\text{ ppm}/^{\circ}\text{C}$	$\pm 700\text{ ppm}/^{\circ}\text{C}$	$\pm 250\text{ ppm}/^{\circ}\text{C}$	$\pm 150\text{ ppm}/^{\circ}\text{C}$

**MECHANICAL SPECIFICATIONS**

Mechanical Protection	Molded
Resistive Element	Thick Film
Substrate	Alumina
Connections	Tinned Copper
Weight	2 g max.

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	- 55 °C to 155 °C
Climatic Category	55/155/56

DIMENSIONS

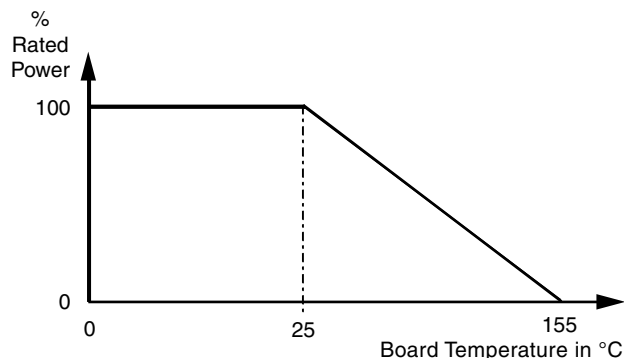
Standard package	TO 263 Style (D2 PAK)
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PACKAGING

Reel
Tube on request

POWER RATING

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

**MARKING**

Model, Style, Resistance Value (in Ohm), Tolerance (in %),
Manufacturing Date, Vishay Trademark.

PERFORMANCE

TESTS	CONDITIONS	TYPICAL DRIFTS
Momentary Overload	NF EN 140 000 CEI 115-1 2Pr/5s $U_s < 1.5U_I$	$\pm (0.25 \% + 0.005 \Omega)$
Rapid Temperature Change	NF EN 140 000 CEI 68214 Test Na 5 cycles - 55 °C to + 155 °C	$\pm (0.5 \% + 0.005 \Omega)$
Load Life	NF EN 140 000 1000h Pr at + 25 °C	$\pm (1 \% + 0.005 \Omega)$
Humidity (Steady State)	NF EN 140 000 56 days R.H > 95 %	$\pm (0.5 \% + 0.005 \Omega)$
Vibration	MIL STD 202 Method 204 C - Test. D	$\pm (0.2 \% + 0.005 \Omega)$
Termination Strength	MIL STD 202 Method 211 Cond. A1	$\pm (0.2 \% + 0.005 \Omega)$
Shock	100 G, MIL STD 202 Method 213 Cond. I	$\pm (0.5 \% + 0.005 \Omega)$

ORDERING INFORMATION

D2TO	20	C	100 kΩ	± 1 %	XXX	e3
MODEL	STYLE	CONNECTIONS	RESISTANCE VALUE	TOLERANCE	CUSTOM DESIGN	LEAD (Pb)-FREE
				± 1 % ± 2 % ± 5 % ± 10 %	Optional on request: shape, etc	

SAP PART NUMBERING GUIDELINES

SAP Part Numbering Guidelines																
D	2	T	O	2	0	C	-	1	0	0	0	2	F	R	E	3
MODEL				STYLE		CONNECTIONS		RESISTANCE VALUE					TOL	PACK	LEAD (Pb)-FREE	
SAP Part Number D2TO20C10002FRE3																



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