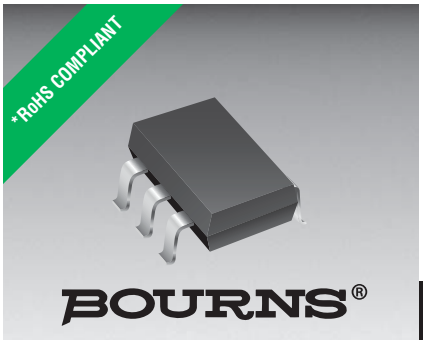


Features

- RoHS compliant*
- Unidirectional & bidirectional configurations
- Protects 4 or 5 lines
- ESD, EFT & surge protection

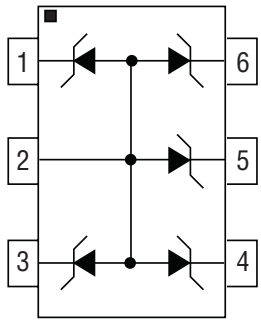
This series is currently available but not recommended for new designs.

CDSOT563-T05C – SMT TVS Diode Array

General Information

The CDSOT563-T05C device provides ESD and EFT protection for high speed data ports meeting IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. The Transient Voltage Suppressor array offers a Working Peak Reverse Voltage of 5 V.

The SOT563 packaged device will mount directly onto the industry standard SOT563 footprint. Bourns® Chip Diodes are easy to handle with standard pick and place equipment and the flat configuration minimizes roll away.



Electrical & Thermal Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

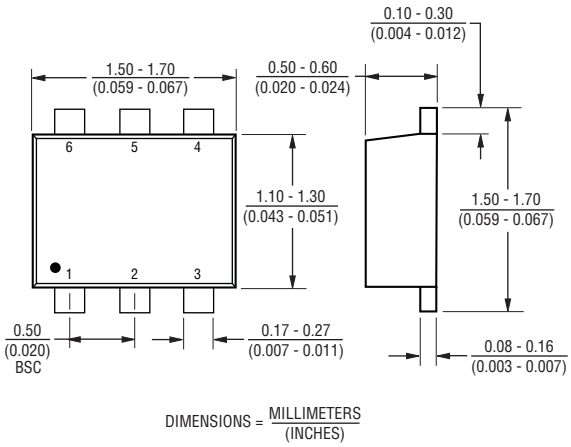
Parameter	Symbol	CDSOT563-T05C	Unit
Peak Pulse Power (t_p = 8/20 μs) (NOTE 1)	P_{PK}	100	W
Peak Pulse Current (t_p = 8/20 μs)	I_{PPM}	9	A
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Temperature	T_{OPR}	-55 to +150	°C
Minimum Breakdown Voltage @ 1 mA	V_{BR}	6	V
Maximum Working Peak Voltage	V_M	5	V
Maximum Clamping Voltage @ 8/20 μs @ I_{PP}	V_{PP}	12	V
Maximum Leakage Current @ V_{WM}	I_L	1	μA
Maximum Forward Voltage @ 10 mA	V_F	1	V
Typical Capacitance @ 0 V, 1 MHz	C_P	40	pF

Notes:
1. See Peak Pulse Power vs. Pulse Time.

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Product Dimensions

This is a molded JEDEC SOT-563 package with lead free 100 % Tin (Sn) on the lead frame. It weighs approximately 15 mg and has a flammability rating of UL 94V-0.

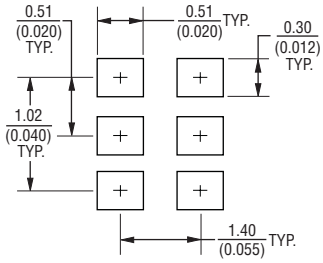


DIMENSIONS = MILLIMETERS / (INCHES)

Typical Part Marking

CDSOT563-T05C E5U

Recommended Footprint



How To Order

CD SOT563 - T 05C

Common Code
CD = Chip Diode

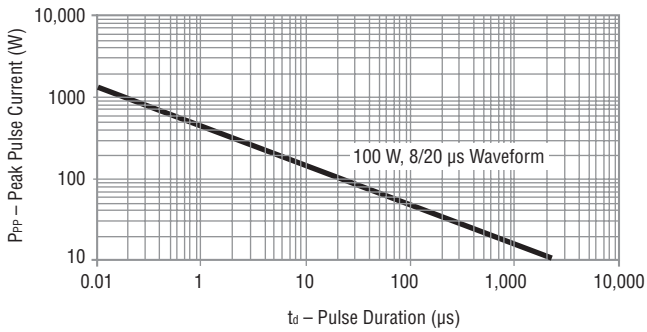
Package
SOT563 = SOT-563 Package

Model
T = Transient Voltage Suppressor Diode

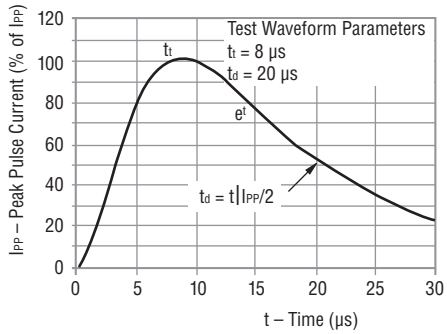
Maximum Working Peak Voltage
05C = 5 V

Performance Graphs

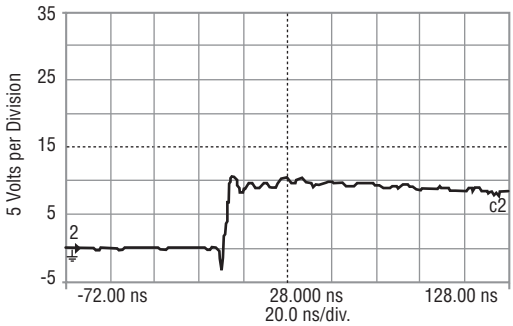
Peak Pulse Power vs Pulse Time



Pulse Waveform

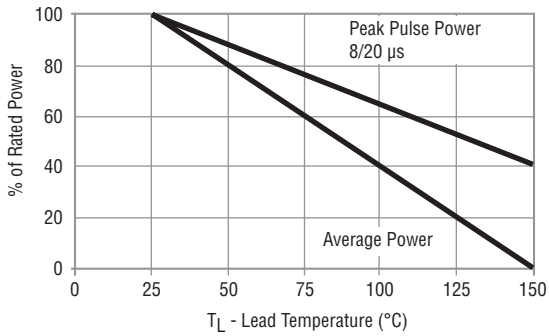


Overshoot & Clamping Voltage



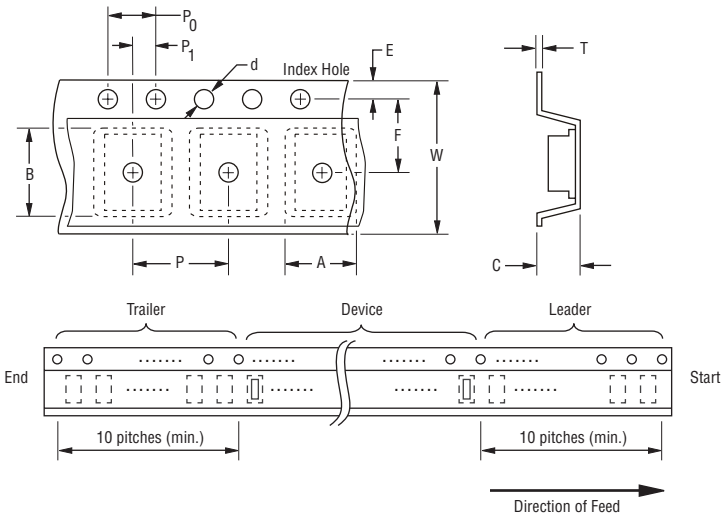
ESD Test Pulse: 25 kilovolt, 1/30 ns (waveshape)

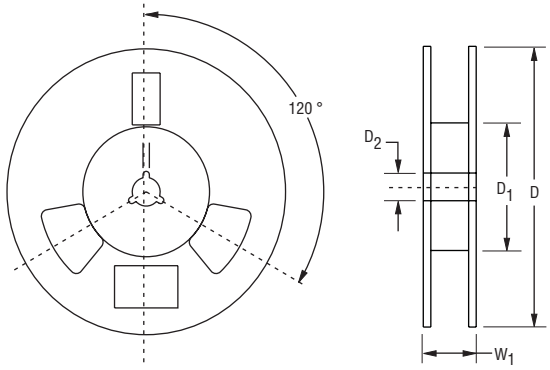
Power Derating Curve



Packaging Information

The product will be dispensed in tape and reel format (see diagram below).





Devices are packed in accordance with EIA standard RS-481-A.

DIMENSIONS: MM / (INCHES)

Item	Symbol	SOT-563
Carrier Width	A	1.78 ± 0.005 (0.069 ± 0.002)
Carrier Length	B	1.78 ± 0.005 (0.069 ± 0.002)
Carrier Depth	C	0.69 ± 0.05 (0.027 ± 0.002)
Sprocket Hole	d	1.55 ± 0.05 (0.061 ± 0.002)
Reel Outside Diameter	D	178 (7.008)
Reel Inner Diameter	D_1	50.0 (1.969) MIN.
Feed Hole Diameter	D_2	13.0 ± 0.20 (0.512 ± 0.008)
Sprocket Hole Position	E	1.75 ± 0.10 (0.069 ± 0.004)
Punch Hole Position	F	3.50 ± 0.05 (0.138 ± 0.002)
Punch Hole Pitch	P	4.00 ± 0.10 (0.157 ± 0.004)
Sprocket Hole Pitch	P_0	4.00 ± 0.10 (0.157 ± 0.004)
Embossment Center	P_1	2.00 ± 0.05 (0.079 ± 0.002)
Overall Tape Thickness	T	0.20 ± 0.10 (0.008 ± 0.004)
Tape Width	W	8.00 ± 0.20 (0.315 ± 0.008)
Reel Width	W_1	14.4 (0.567) MAX.
Quantity per Reel	--	3000