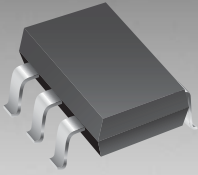


\*RoHS COMPLIANT



**BOURNS®**

## Features

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



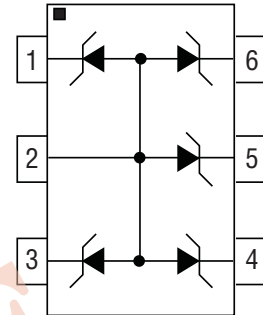
This series is obsolete and not recommended for new designs.

## 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<sub>A</sub> = 25 °C Unless Otherwise Noted)

Parameter	Symbol	CDSOT563-T05C	Unit
Peak Pulse Power (t <sub>p</sub> = 8/20 μs) <sup>(NOTE 1)</sup>	P <sub>PK</sub>	100	W
Peak Pulse Current (t <sub>p</sub> = 8/20 μs)	I <sub>PPM</sub>	9	A
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C
Operating Temperature	T <sub>OPR</sub>	-55 to +150	°C
Minimum Breakdown Voltage @ 1 mA	V <sub>BR</sub>	6	V
Maximum Working Peak Voltage	V <sub>M</sub>	5	V
Maximum Clamping Voltage @ 8/20 μs @ I <sub>PP</sub>	V <sub>PP</sub>	12	V
Maximum Leakage Current @ V <sub>WM</sub>	I <sub>L</sub>	1	μA
Maximum Forward Voltage @ 10 mA	V <sub>F</sub>	1	V
Typical Capacitance @ 0 V, 1 MHz	C <sub>P</sub>	40	pF

Notes:

1. See Peak Pulse Power vs. Pulse Time.



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

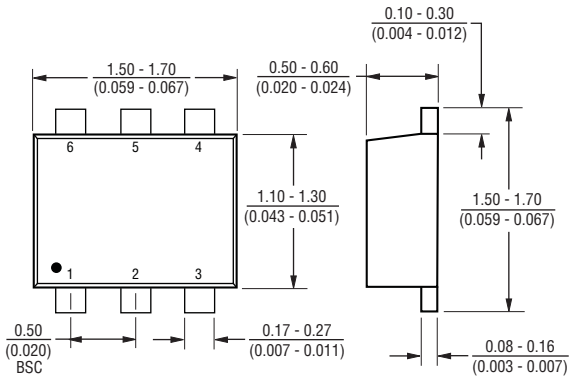
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# CDSOT563-T05C – SMT TVS Diode Array



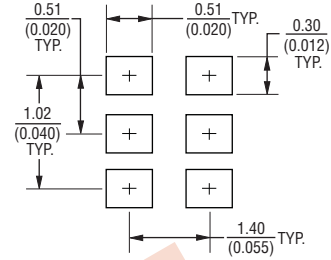
## Product Dimensions

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 =  $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$

## Recommended Footprint



## How To Order

Common Code CD SOT563 - T 05C

CD = Chip Diode

Package SOT563 = SOT-563 Package

Model T = Transient Voltage Suppressor Diode

Maximum Working Peak Voltage 05C = 5 V

## Typical Part Marking

CDSOT563-T05C .....E5U

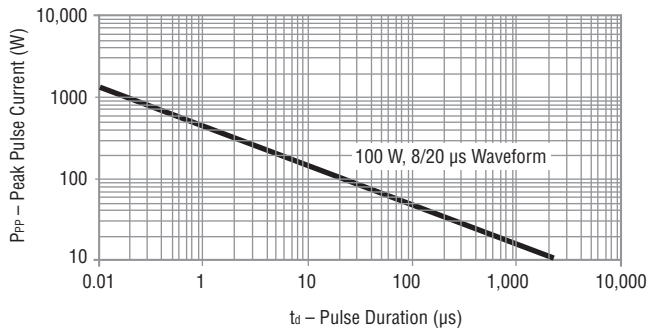
Specifications are subject to change without notice.

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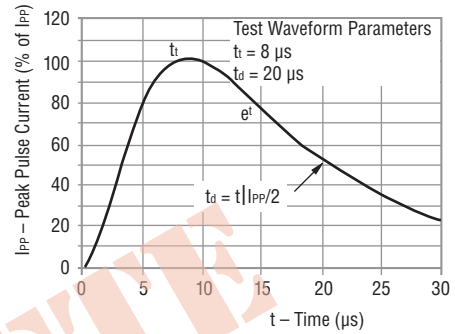
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Performance Graphs

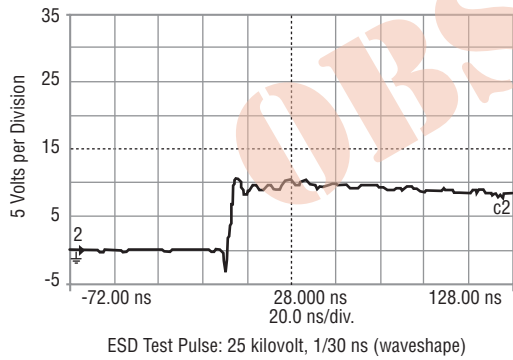
Peak Pulse Power vs Pulse Time



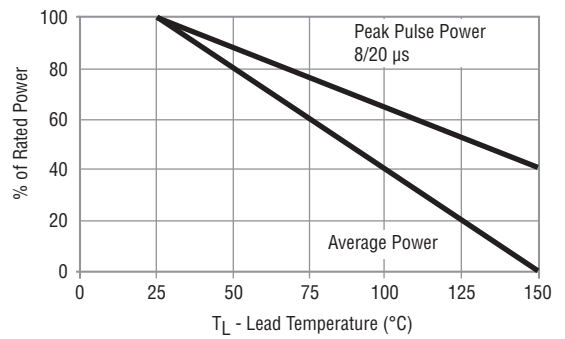
Pulse Waveform



Overshoot & Clamping Voltage



Power Derating Curve

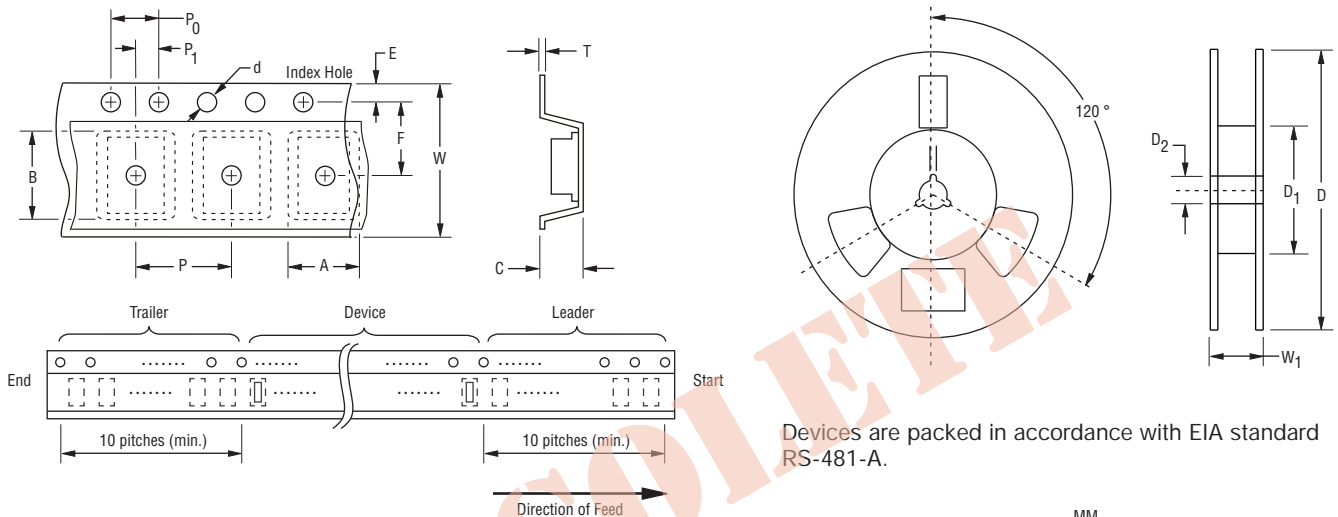


# CDSOT563-T05C – SMT TVS Diode Array

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## 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:  $\frac{\text{MM}}{\text{(INCHES)}}$

Item	Symbol	SOT-563
Carrier Width	A	$\frac{1.78 \pm 0.005}{(0.069 \pm 0.002)}$
Carrier Length	B	$\frac{1.78 \pm 0.005}{(0.069 \pm 0.002)}$
Carrier Depth	C	$\frac{0.69 \pm 0.05}{(0.027 \pm 0.002)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 \pm 0.002)}$
Reel Outside Diameter	D	$\frac{178}{(7.008)}$
Reel Inner Diameter	D <sub>1</sub>	$\frac{50.0}{(1.969)}$ MIN.
Feed Hole Diameter	D <sub>2</sub>	$\frac{13.0 \pm 0.20}{(0.512 \pm 0.008)}$
Sprocket Hole Position	E	$\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$
Punch Hole Position	F	$\frac{3.50 \pm 0.05}{(0.138 \pm 0.002)}$
Punch Hole Pitch	P	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Sprocket Hole Pitch	P <sub>0</sub>	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Embossment Center	P <sub>1</sub>	$\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$
Overall Tape Thickness	T	$\frac{0.20 \pm 0.10}{(0.008 \pm 0.004)}$
Tape Width	W	$\frac{8.00 \pm 0.20}{(0.315 \pm 0.008)}$
Reel Width	W <sub>1</sub>	$\frac{14.4}{(0.567)}$ MAX.
Quantity per Reel	--	3000

**BOURNS®**

### Asia-Pacific:

Tel: +886-2 2562-4117

Email: asiacus@bourns.com

### Europe:

Tel: +36 88 885 877

Email: eurocus@bourns.com

### The Americas:

Tel: +1-951 781-5500

Email: americus@bourns.com

[www.bourns.com](http://www.bourns.com)

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Users should verify actual device performance in their specific applications.

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