

Features

- Four unidirectional ESD protections
- RoHS compliant*
- Low capacitance
- Surge protection



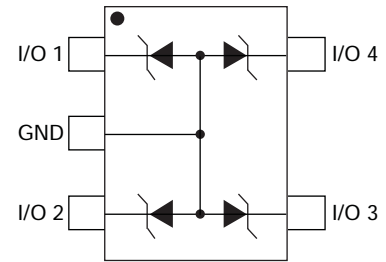
This model is currently available, but not recommended for new designs.

CDSOT353-T05 - TVS Diode Quad Array

General Information

The CDSOT353-T05 device provides ESD, EFT and Surge protection for high speed data ports meeting IEC 61000-4-2 (ESD), IEC 61000-4-4 (EFT) and IEC 61000-4-5 (Surge) requirements. The Transient Voltage Suppressor array offers a Working Peak Reverse Voltage of 5.0 V and Minimum Breakdown Voltage of 6.0 V.

The SOT353 packaged device will mount directly onto the industry standard SOT353 footprint. Bourns® Chip Diodes are easy to handle with standard pick and place equipment and their flat configuration minimizes roll away.



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

Parameter	Symbol	CDSOT353-T05	Unit
Peak Pulse Power ($t_p = 8/20 \mu s$) (NOTE 1)	P _{PK}	25	W
Storage Temperature	T _{STG}	-55 to +150	°C
Operating Temperature	T _{OPR}	-55 to +125	°C
Minimum Breakdown Voltage @ 1 mA	V _{BR}	6.0	V
Working Peak Voltage	V _M	5.0	V
Maximum Clamping Voltage @ I _P = 2 A	V _P	13	V
Maximum Leakage Current @ 3 V	I _L	1	μA
Typical Capacitance 2.5 V @ 1 MHz	C	9.5	pF

Notes:

1. See Peak Pulse Power vs. Pulse Time.



WARNING Cancer and Reproductive Harm - 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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Applications

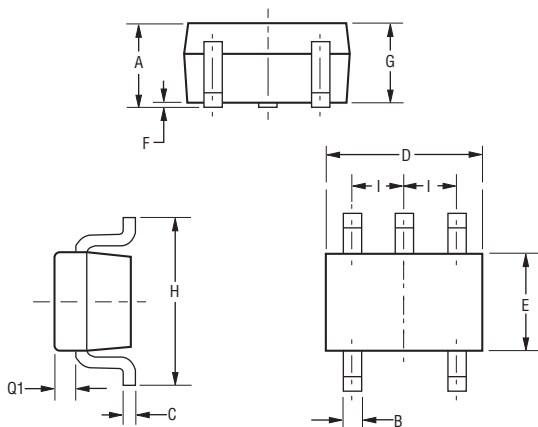
- High speed data ports
- Mobile phones & accessories
- Video/graphics cards
- Set top boxes
- Communication systems

CDSOT353-T05 - TVS Diode Quad Array

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Product Dimensions

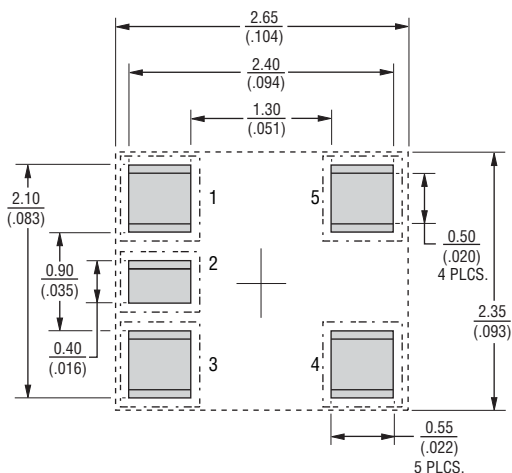
This is an RoHS compliant molded SOT353 package with 100 % Matte Sn on the lead frame. It weighs approximately 15 mg and has a flammability rating of UL 94V-0.



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

Dimension	Min.	Max.
A	$\frac{0.80}{(0.031)}$	$\frac{1.10}{(0.043)}$
B	$\frac{0.15}{(0.006)}$	$\frac{0.30}{(0.012)}$
C	$\frac{0.10}{(0.004)}$	$\frac{0.18}{(0.007)}$
D	$\frac{1.80}{(0.071)}$	$\frac{2.20}{(0.087)}$
E	$\frac{1.15}{(0.045)}$	$\frac{1.35}{(0.053)}$
F	-	$\frac{0.10}{(0.004)}$
G	$\frac{0.80}{(0.031)}$	$\frac{1.00}{(0.039)}$
H	$\frac{1.80}{(0.071)}$	$\frac{2.40}{(0.094)}$
I	$\frac{0.65}{(0.026)}$ TYP.	
Q1	$\frac{0.10}{(0.004)}$	$\frac{0.40}{(0.016)}$

Recommended Footprint



Typical Part Marking

CDSOT353-T05.....D5

How to Order

CD SOT353 - T 05

Common Diode _____
 Chip Diode _____
 Package _____
 SOT353 = SOT353 Package _____
 Model _____
 T = Transient Voltage Suppressor _____
 Working Peak Reverse Voltage _____
 05 = 5 V_{RWM} (Volts) _____

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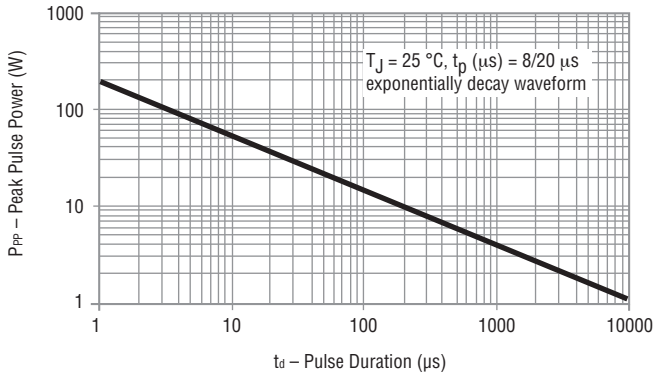
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CDSOT353-T05 - TVS Diode Quad Array

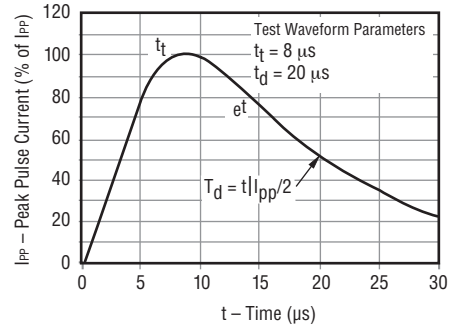
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Rating & Characteristic Curves

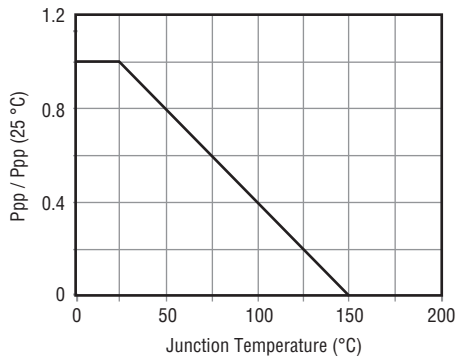
Non-Repetitive Peak Pulse Power vs. Pulse Time



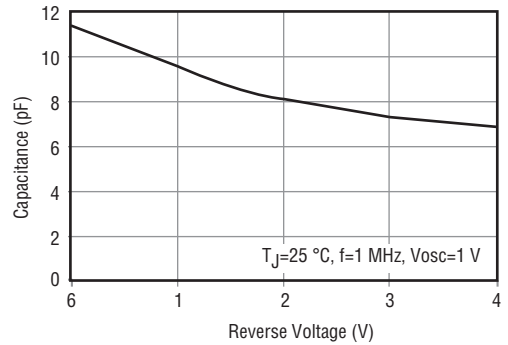
Pulse Waveform



Peak Pulse Power vs. Junction Temperature



Typical Junction Capacitance



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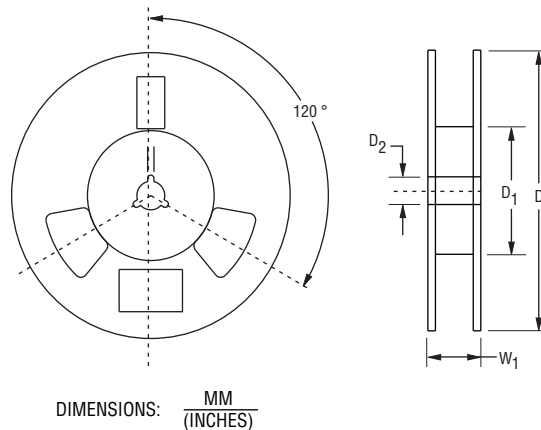
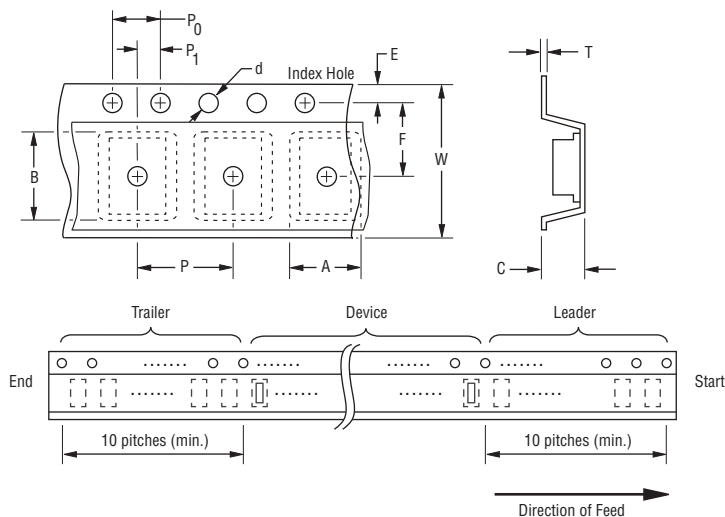
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CDSOT353-T05 - TVS Diode Quad Array

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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.

Item	Symbol	CDSOT353
Carrier Width	A	$\frac{2.25 \pm 0.10}{(0.088 \pm 0.004)}$
Carrier Length	B	$\frac{2.34 \pm 0.10}{(0.092 \pm 0.004)}$
Carrier Depth	C	$\frac{1.22 \pm 0.10}{(0.048 \pm 0.004)}$
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 ₁	$\frac{50.0}{(1.969)}$ MIN.
Feed Hole Diameter	D ₂	$\frac{13.0 \pm 0.20}{(0.512 \pm 0.008)}$
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 ₀	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
Embossment Center	P ₁	$\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$
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 ₁	$\frac{14.4}{(0.567)}$ 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

REV. 08/19

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