

Features

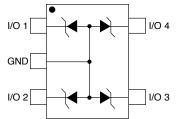
- Four unidirectional ESD protections
- RoHS compliant*
- Low capacitance
- Surge protection



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.

Additional Information

Click these links for more information:

PRODUCT TECHNICAL INVENTORY SAMPLES





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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	IL	1	μΑ
Typical Capacitance 2.5 V @ 1 MHz	С	9.5	pF

Notes:

1. See Peak Pulse Power vs. Pulse Time.

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Applications

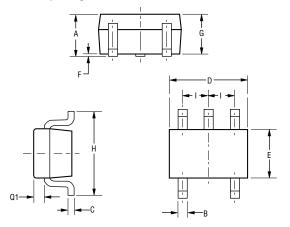
- High speed data ports
- Mobile phones & accessories
- Video/graphics cards
- Set top boxes
- Communication systems

CDS0T353-T05 - TVS Diode Quad Array

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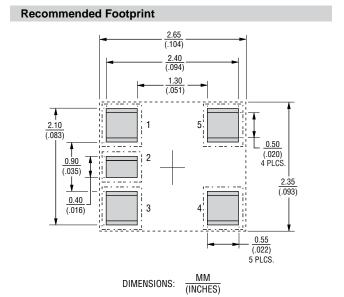
Product Dimensions

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.

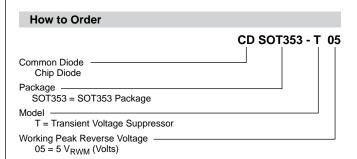


DIMENSIONS: $\frac{MM}{(INCHES)}$

Dimension	Min.	Max.	
А	<u>0.80</u> (0.031)	1.10 (0.043)	
В	<u>0.15</u> (0.006)	<u>0.30</u> (0.012)	
С	<u>0.10</u> (0.004)	<u>0.18</u> (0.007)	
D	1.80 (0.071)	<u>2.20</u> (0.087)	
E	<u>1.15</u> (0.045)	<u>1.35</u> (0.053)	
F	-	<u>0.10</u> (0.004)	
G	<u>0.80</u> (0.031)	1.00 (0.039)	
Н	1.80 (0.071)	<u>2.40</u> (0.094)	
I	$\frac{0.65}{(0.026)}$ TYP.		
Q1	<u>0.10</u> (0.004)	<u>0.40</u> (0.016)	





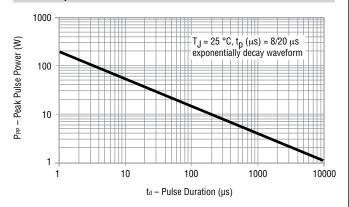


CDS0T353-T05 - TVS Diode Quad Array

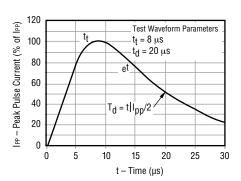
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Rating & Characteristic Curves

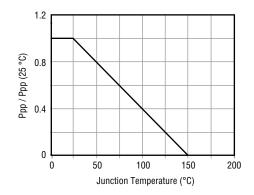
Non-Repetitive Peak Pulse Power vs. Pulse Time



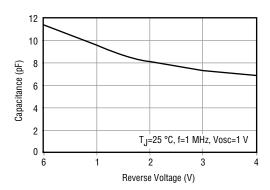
Pulse Waveform



Peak Pulse Power vs. Junction Temperature



Typical Junction Capacitance

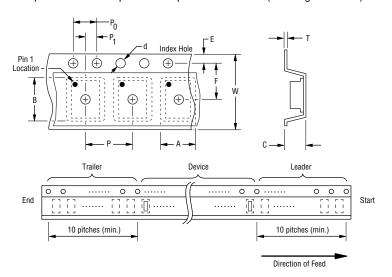


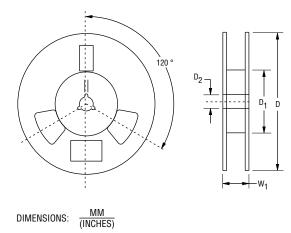
CDSOT353-T05 - TVS Diode Quad Array

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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	А	$\frac{2.25 \pm 0.10}{(0.088 \pm 0.004)}$
Carrier Length	В	$\frac{2.34 \pm 0.10}{(0.092 \pm 0.004)}$
Carrier Depth	С	$\frac{1.22 \pm 0.10}{(0.048 \pm 0.004)}$
Sprocket Hole	d	$\frac{1.55 \pm 0.05}{(0.061 \pm 0.002)}$
Reel Outside Diameter	D	<u>178</u> (7.008)
Reel Inner Diameter	D ₁	<u>50.0</u> (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	Р	$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$
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	Т	$\frac{0.20 \pm 0.10}{(0.008 \pm 0.004)}$
Tape Width	W	$\frac{8.00 \pm 0.20}{(0.315 \pm 0.008)}$
Reel Width	W ₁	14.4 (0.567) MAX.
Quantity per Reel		3000

REV. 08/19

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Users should verify actual device performance in their specific applications.
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