

**CMYTVS5-2**

**SURFACE MOUNT SILICON  
LOW CAPACITANCE  
5 VOLT, 2-LINE  
TVS/DIODE ARRAY**



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



**SOT-543 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMYTVS5-2 is a 2-line TVS/Diode array packaged in the SOT-543 surface mount case. This device, with its low capacitance, was designed to protect two high speed data or transmission lines from over-voltage transients and ESD damage.

**MARKING CODE: C52****FEATURES:**

- 15kV ESD protection
- Low capacitance
- Low clamping voltage
- Protects two I/O lines
- Protects supply voltage rail

**APPLICATIONS:**

- USB 2.0 power and data line protection
- HDMI
- DVI
- Ethernet ports

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Peak Power Dissipation (8x20 $\mu\text{s}$ )  
ESD Voltage (IEC61000-4-2, Air)  
Operating and Storage Junction Temperature

**SYMBOL**

$P_{PK}$  60  
 $V_{ESD}$  15  
 $T_J, T_{stg}$  -55 to +150

**UNITS**

W  
kV  
 $^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$ )

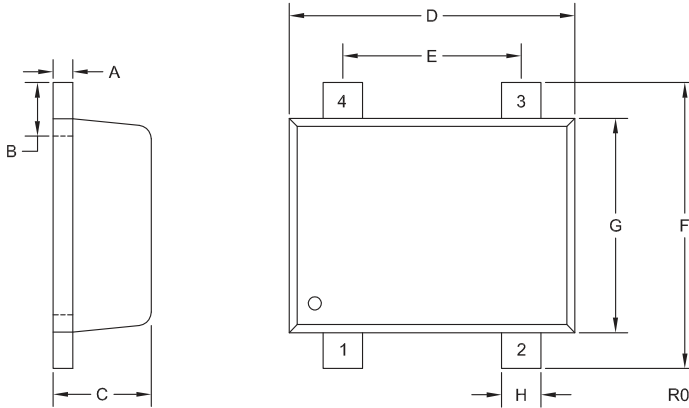
Maximum Reverse Stand-Off Voltage $V_{RWM}$	Minimum Reverse Breakdown Voltage pin 4 to pin 1 $V_Z @ I_Z$		Maximum Reverse Leakage Current pin 4 to pin 1 $I_R @ V_R$		Maximum Clamping Voltage I/O to pin 1 (8x20 $\mu\text{s}$ ) $V_C @ I_{PP}$		Maximum Clamping Voltage I/O to pin 1 (8x20 $\mu\text{s}$ ) $V_C @ I_{PP}$		Off State Junction Capacitance I/O to GND ( $V_R=0, f=1.0\text{MHz}$ ) $C_J$		Off State Junction Capacitance I/O to I/O ( $V_R=0, f=1.0\text{MHz}$ ) $C_J$	
	V	V	mA	$\mu\text{A}$	V	V	A	V	A	TYP pF	MAX pF	TYP pF
5.0	6.2	1.0	1.0	5.0	9.0	1.0	12	5.0	0.9	1.2	0.5	0.6

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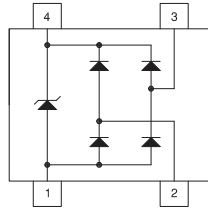
**SOT-543 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.007	0.07	0.17
B	0.004	0.012	0.10	0.30
C	0.019	0.024	0.50	0.60
D	0.059	0.067	1.50	1.70
E	0.035	0.044	0.90	1.10
F	0.059	0.067	1.50	1.70
G	0.044	0.052	1.10	1.30
H	0.006	0.011	0.17	0.27

SOT-543 (REV: R0)

**PIN CONFIGURATION**

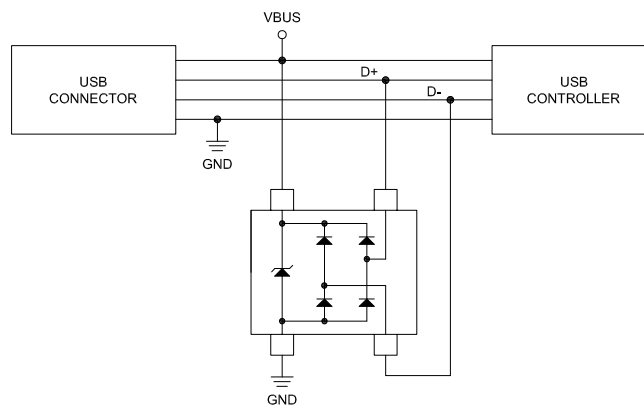


**LEAD CODE:**

- 1) Ground
- 2) I/O
- 3) I/O
- 4) Supply Voltage ( $V_{CC}$ )

**MARKING CODE: C52**

**TYPICAL APPLICATION - USB 2.0**



R1 (4-January 2013)

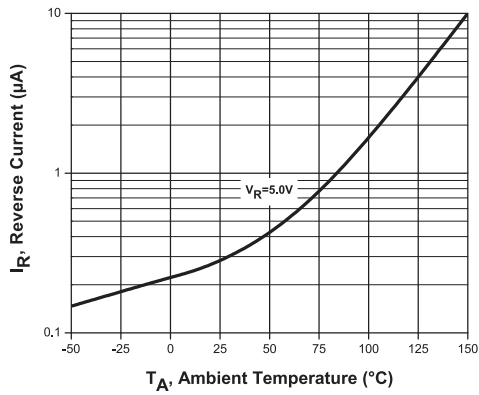
CMYTVS5-2

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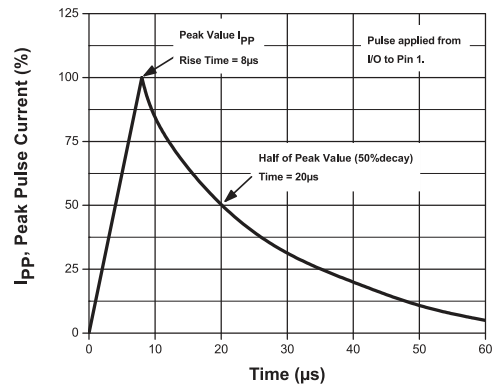


TYPICAL ELECTRICAL CHARACTERISTICS

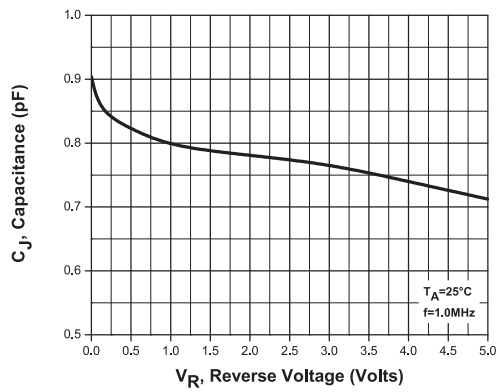
Typical Reverse Leakage Current Pin 4 to Pin 1



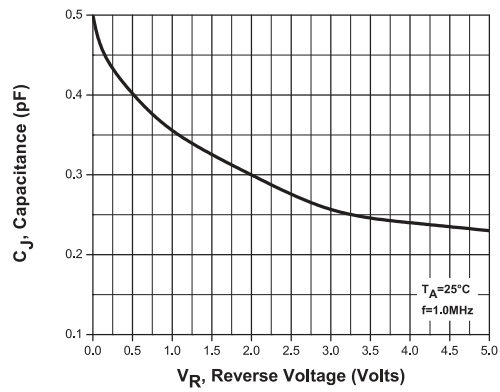
8x20 $\mu s$  Surge Current Waveform



Typical Capacitance I/O to GND



Typical Capacitance I/O to I/O



R1 (4-January 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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# Product End of Life Notification

<b>PDN ID:</b>	PDN01141
<b>Notification Date:</b>	12/17/19
<b>Last Buy Date:</b>	6/17/20
<b>Last Shipment Date</b>	12/17/20

Summary: The CMYTVS5-2 transient voltage suppressor is discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CMYTVS5-2 BK	N/A, Stock Only
CMYTVS5-2 TR	N/A, Stock Only

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

**DISCLAIMER:** This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.