

CMXTVS5V6  
CMXTVS6V2

SURFACE MOUNT SILICON  
QUAD TVS/ZENER ARRAY



SOT-26 CASE



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXTVS5V6 and CMXTVS6V2 are 4-line TVS/Zener arrays packaged in a surface mount case. These devices are designed to protect sensitive electronic equipment, such as computers, networking communication, cell phones and instrumentation from over-voltage transients and ESD damage.

**MARKING CODES: CMXTVS5V6: 5V6C  
CMXTVS6V2: 6V2C**

**FEATURES:**

- Very Low Clamping Voltage
- Low Leakage Current
- 150W Peak Power Dissipation

**APPLICATIONS:**

- Hand Held Portable Equipment
- Networks, Servers and Telecom
- Desktop and Notebook Computers
- Instrumentation

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

Peak Power Dissipation (8x20 $\mu\text{s}$ )  
Peak Power Dissipation (10x1000 $\mu\text{s}$ )  
Electrical Fast Transient (IEC 61000-4-4) (5x50ns)  
ESD Voltage (IEC 61000-4-2, Air)  
ESD Voltage (IEC 61000-4-2, Contact)  
Operating and Storage Junction Temperature

**SYMBOL**

$P_{PK}$  150  
 $P_{PK}$  24  
EFT 40  
 $V_{ESD}$  20  
 $V_{ESD}$  15  
 $T_J, T_{stg}$  -55 to +150

**UNITS**

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

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

Type	Breakdown Voltage			Maximum Leakage Current		Maximum Clamping Voltage (10x1000 $\mu\text{s}$ )		Maximum Clamping Voltage (8x20 $\mu\text{s}$ )		Typical TLP Clamping Voltage (Note 1)		Typical Dynamic Resistance (Note 1)	Maximum Capacitance @ 0V Bias	Maximum Capacitance @ 2.8V Bias	Maximum Impedance
	$V_{BR} @ 1.0\text{mA}$			$I_R @ V_R$		$V_C @ I_{PP}$		$V_C @ I_{PP}$		$V_{CL} @ I_{PP}$		$R_{DYN}$			$Z_{ZT} @ 1.0\text{mA}$
	MIN V	NOM V	MAX V	$\mu\text{A}$	V	V	A	V	A	V	A	$\Omega$	pF	pF	$\Omega$
CMXTVS5V6	5.32	5.6	5.88	2.0	3.0	8.0	3.0	12	12.5	8.0	8.2	0.29	275	160	400
										6.0	1.2				
CMXTVS6V2	5.89	6.2	6.51	0.7	4.3	9.0	2.66	12.5	12	8.0	5.0	0.36	260	150	300
										11	13.3				

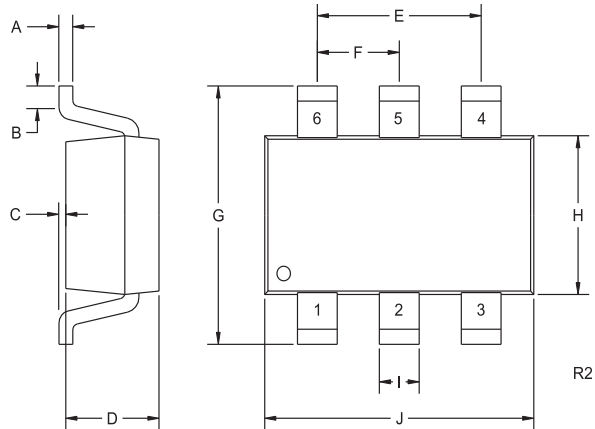
Note 1: Transmission Line Pulse (TLP) conditions:  $Z_0=50\Omega$ ,  $t_p=100\text{ns}$

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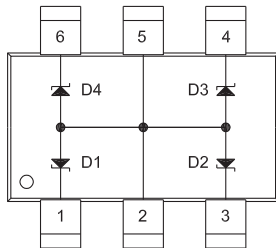
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SOT-26 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.007	0.11	0.19
B	0.016	-	0.40	-
C	-	0.004	-	0.10
D	0.039	0.047	1.00	1.20
E	0.074	0.075	1.88	1.92
F	0.037	0.038	0.93	0.97
G	0.102	0.118	2.60	3.00
H	0.059	0.067	1.50	1.70
I	0.016		0.41	
J	0.110	0.118	2.80	3.00

SOT-26 (REV: R2)

LEAD CODE:

- 1) Cathode D1
- 2) Anode D1, D2, D3, D4
- 3) Cathode D2
- 4) Cathode D3
- 5) Anode D1, D2, D3, D4
- 6) Cathode D4

MARKING CODES: CMXTVS5V6: 5V6C  
CMXTVS6V2: 6V2C

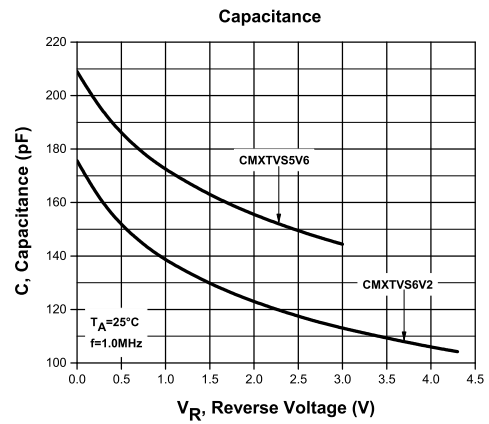
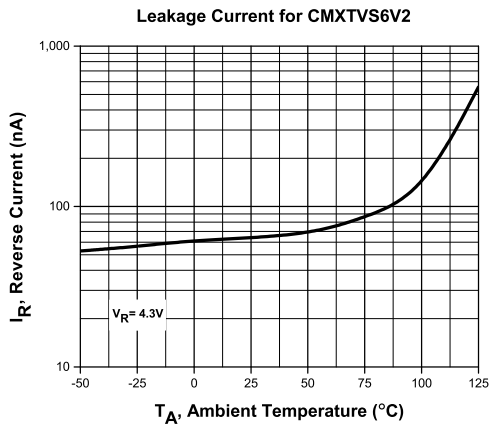
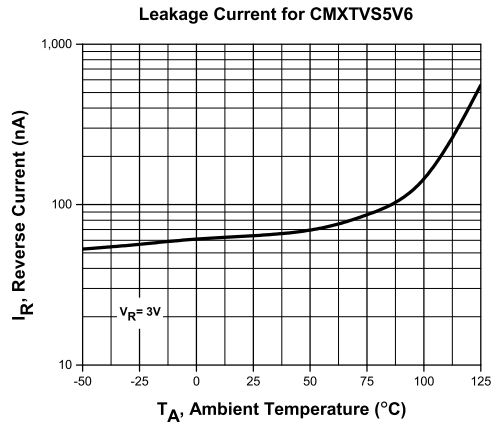
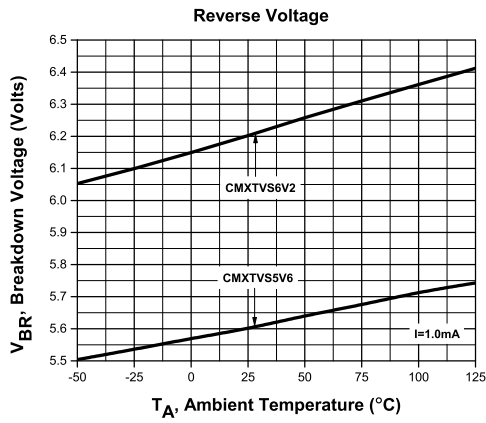
R5 (6-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R5 (6-November 2015)

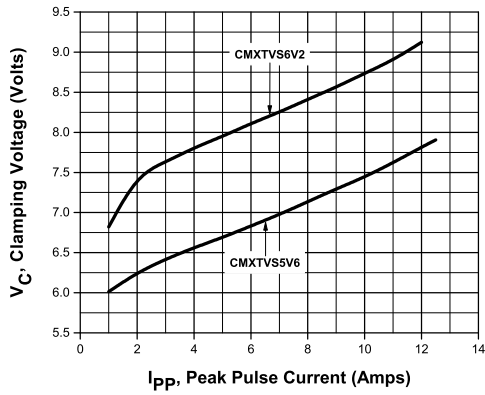
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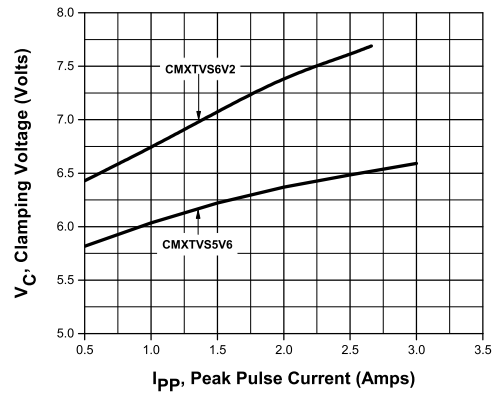


TYPICAL ELECTRICAL CHARACTERISTICS

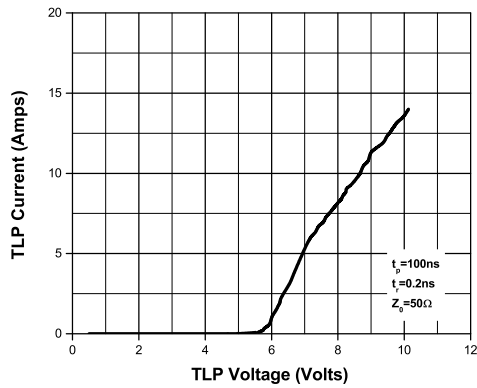
Clamping Voltage ( $V_C$ ) vs Peak Pulse Current ( $I_{PP}$ ) 8x20 $\mu$ s



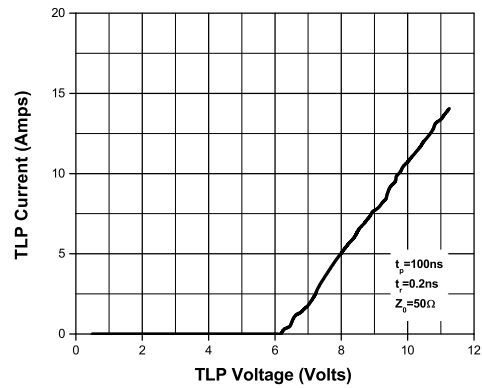
Clamping Voltage ( $V_C$ ) vs Peak Pulse Current ( $I_{PP}$ ) 10x1000 $\mu$ s



TLP Characteristic for CMXTVS5V6



TLP Characteristic for CMXTVS6V2



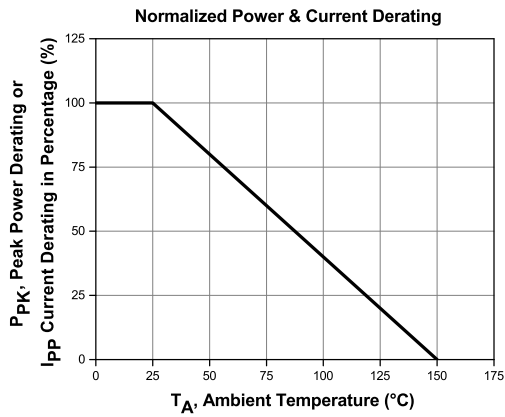
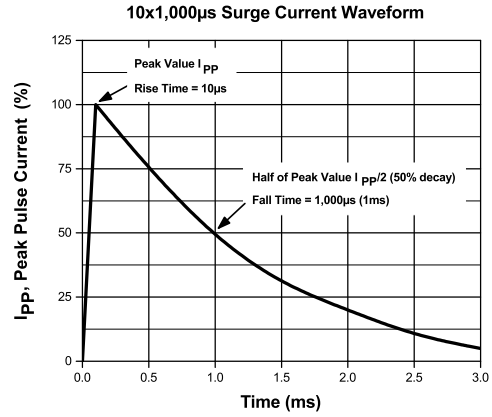
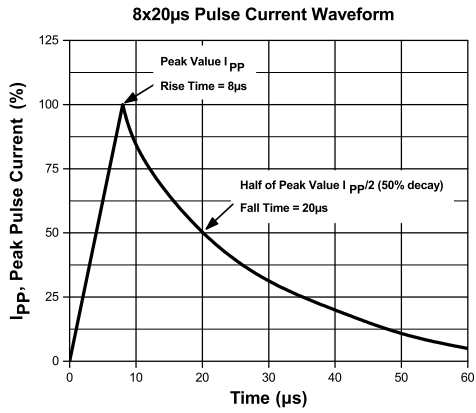
R5 (6-November 2015)

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### TYPICAL ELECTRICAL CHARACTERISTICS



R5 (6-November 2015)

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

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)



<http://www.centrasemi.com>

## Product End of Life Notification

PDN ID:	PDN01079
Notification Date:	4/19/18
Last Buy Date:	N/A
Last Shipment Date	N/A

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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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.



<http://www.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01079
<b>Notification Date:</b>	4/19/18
<b>Last Buy Date:</b>	N/A
<b>Last Shipment Date</b>	N/A

Summary: The CMXTVS5V6 Transient Voltage Suppressor is discontinued and is 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 various 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 Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CMXTVS5V6 TR	N/A

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).

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