

**CMXTVS5-4****SURFACE MOUNT SILICON  
LOW CAPACITANCE  
QUAD TVS/DIODE ARRAY**

www.centrasemi.com

**SOT-26 CASE****DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXTVS5-4 is a 4-line TVS/Diode array packaged in a surface mount case. This device, with its low capacitance, was designed to protect four high speed data or transmission lines from over-voltage transients and ESD damage.

**MARKING CODE: CTV4****APPLICATIONS:**

- USB 2.0 Power and Data Line Protection
- HDMI Interface
- Digital Video Interface (DVI)
- Ethernet Ports

**FEATURES:**

- Low capacitance
- Low clamping voltage
- Protects four I/O lines
- Protects supply voltage rail

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

Input Voltage	$V_I$	5.5	V
Electrical Fast Transient (IEC 61000-4-4) (5x50ns)	EFT	40	A
ESD Voltage (IEC 61000-4-2, Air)	$V_{ESD}$	15	kV
ESD Voltage (IEC 61000-4-2, Contact)	$V_{ESD}$	8.0	kV
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Maximum Reverse Stand-off Voltage $V_{RWM}$	Minimum Reverse Breakdown Voltage pin 5 to pin 2 $V_Z @ I_Z$		Maximum Reverse Leakage Current pin 5 to pin 2 $I_R @ V_R$		Maximum Clamping Voltage (8x20 $\mu\text{s}$ ) I/O to pin 2 $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL} @ I_{PP}$		Typical Dynamic Resistance (Note 1) $R_{DYN}$	Maximum Off State Junction Capacitance ( $V_R=0, f=1.0\text{MHz}$ )		
	V	V	mA	$\mu\text{A}$	V	A	V	A		$\Omega$	I/O to GND	I/O to I/O
											$C_J$	$C_J$
5.0	6.0	1.0	5.0	5.0	12	1.0	7.5	3.5	0.30	1.2	0.6	
							10	11.7				

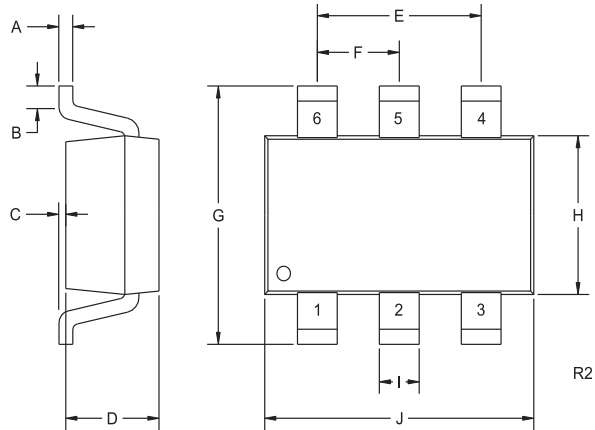
Note 1: Transmission Line Pulse (TLP) conditions:  $Z_0=50\Omega, t_p=100\text{ns}$

CMXTVS5-4

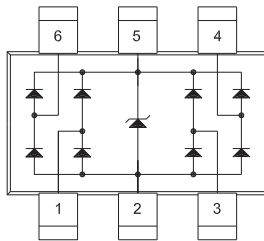
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**SOT-26 CASE - MECHANICAL OUTLINE**



**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) I/O 1
- 2) Ground
- 3) I/O 2
- 4) I/O 3
- 5) Supply Voltage
- 6) I/O 4

**MARKING CODE: CTV4**

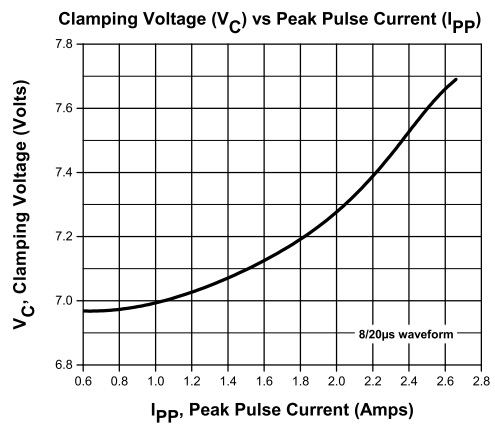
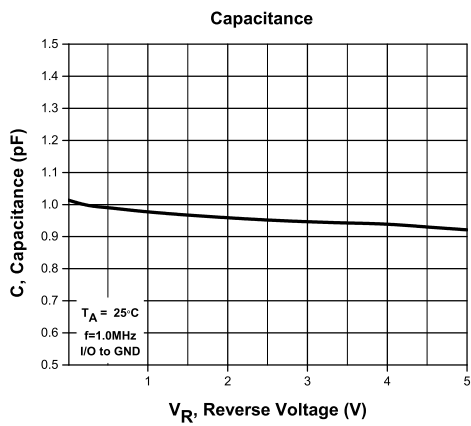
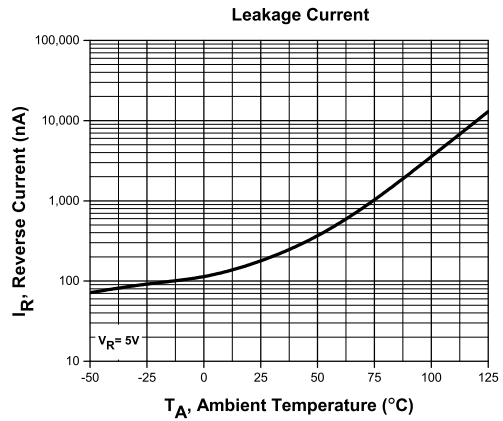
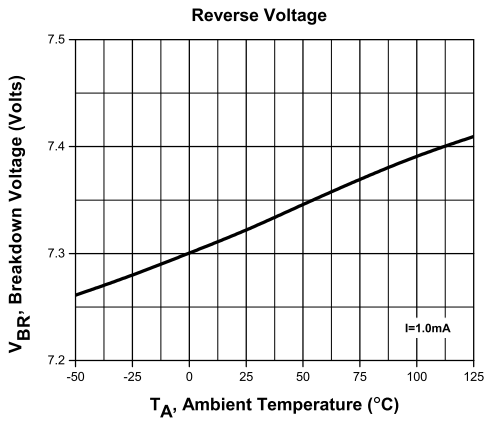
R3 (5-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



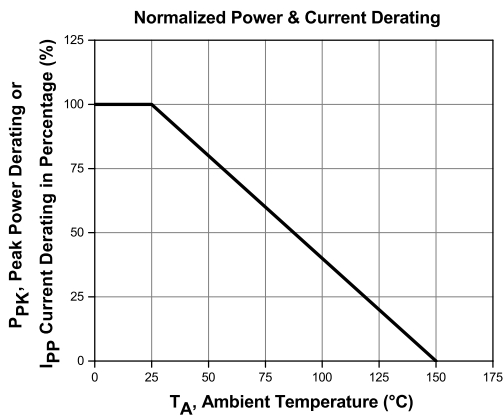
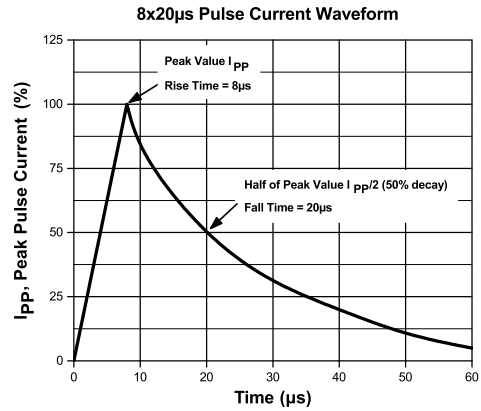
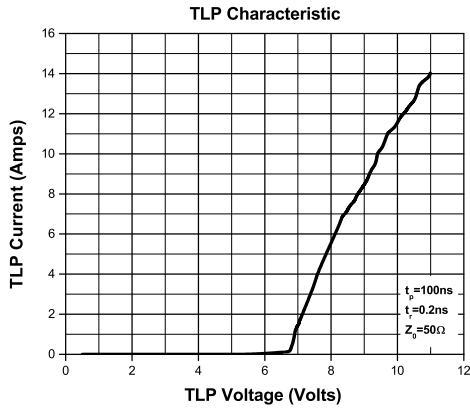
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### TYPICAL ELECTRICAL CHARACTERISTICS



R3 (5-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

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