

CMKTVS5-4**SURFACE MOUNT SILICON
LOW CAPACITANCE
QUAD TVS/DIODE ARRAY**

www.centrasemi.com

**SOT-363 CASE****DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMKTVS5-4 is a 4-line TVS/Diode array packaged in a surface mount case. With its low capacitance, this device was designed to protect four high speed data or transmission lines from over-voltage transients and ESD damage.

MARKING CODE: CVT4**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 PER DIODE:** ($T_A=25^\circ\text{C}$)

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 μs 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	mA	μA	V	V	A	V	A		Ω	I/O to GND	I/O to I/O
											C_J	C_J
5.0	6.0	1.0	3.0	5.0	14	1.0	9.0	1.6	0.72	3.0	1.5	
					23	5.0	14	8.5				

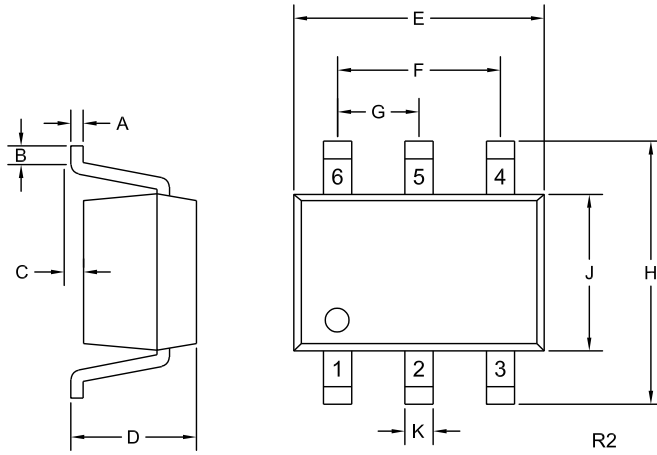
Note 1: Transmission Line Pulse (TLP) conditions: $Z_0=50\Omega, t_p=100\text{ns}$

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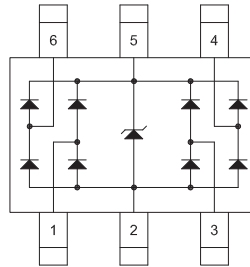
SOT-363 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
			INCHES	MILLIMETERS
	MIN	MAX	MIN	MAX
A	0.004	0.010	0.10	0.25
B	0.005	-	0.12	-
C	0.000	0.004	0.00	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.075	0.091	1.90	2.30
J	0.043	0.055	1.10	1.40
K	0.006	0.012	0.15	0.30

SOT-363 (REV: R2)

PIN CONFIGURATION

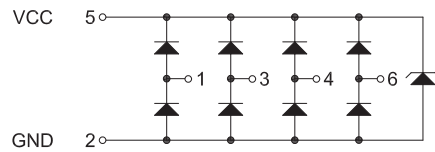


LEAD CODE:

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

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SCHEMATIC



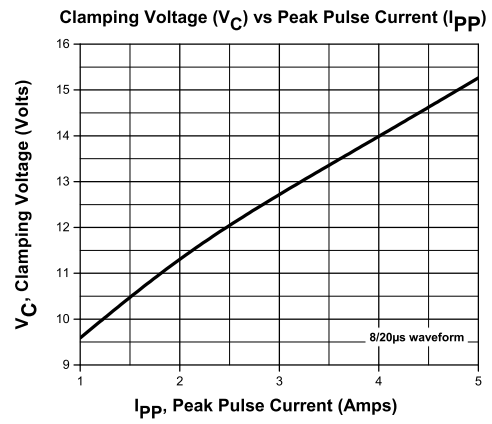
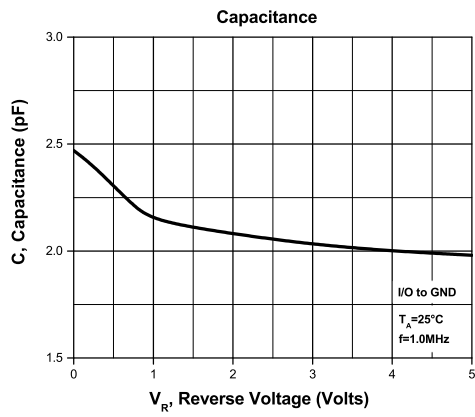
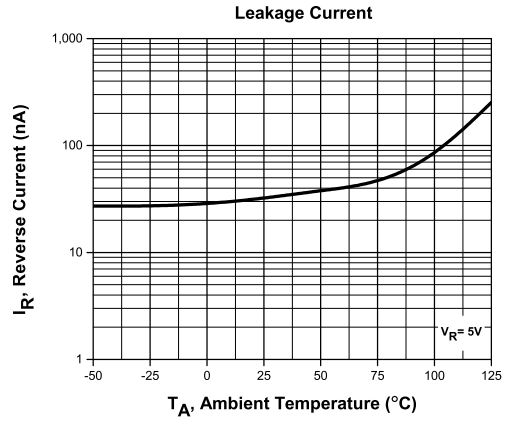
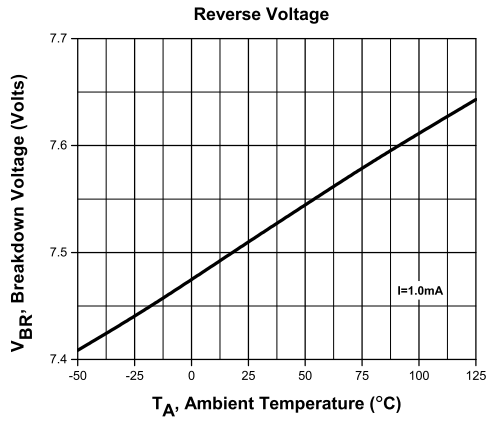
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TYPICAL ELECTRICAL CHARACTERISTICS



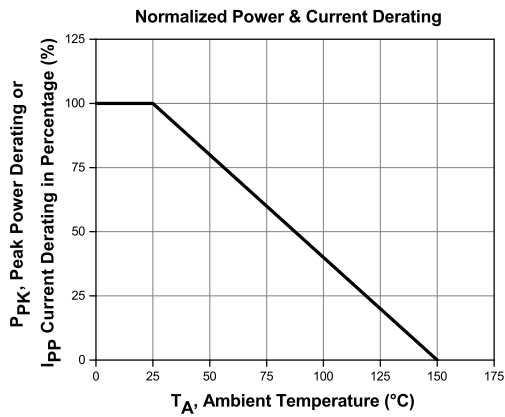
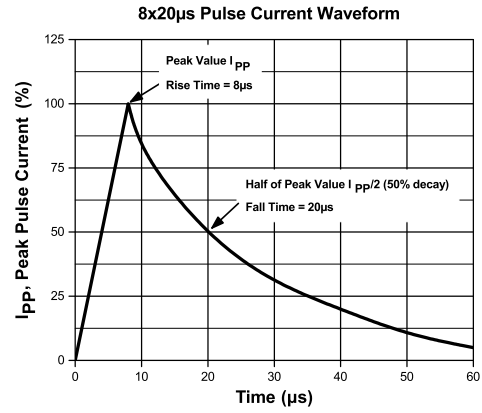
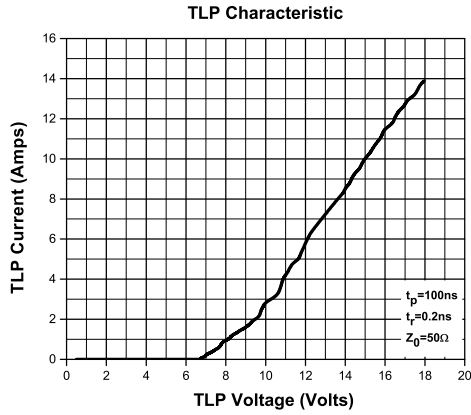
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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