

**CTLTVS6V2**

**SURFACE MOUNT SILICON  
UNI-DIRECTIONAL  
TRANSIENT VOLTAGE SUPPRESSOR**



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



**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTLTVS6V2 is a low leakage, fast response silicon TVS packaged in an ultra small, ultra low profile TLM2D3D6 surface mount case. This device is designed to protect sensitive equipment against ESD damage.

**MARKING CODE: S**

**APPLICATIONS:**

- User interface protection
- Voltage rail protection
- Data line protection
- Voltage clamping

**FEATURES:**

- Ultra small, ultra low profile 0.3mm x 0.6mm x 0.3mm leadless surface mount package
- High peak pulse current capability
- Low leakage current

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

Peak Power Dissipation (8x20 $\mu\text{s}$ )  
 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**

$P_{PK}$                     35  
 EFT                        40  
 $V_{ESD}$                     15  
 $V_{ESD}$                     8.0  
 $T_J, T_{stg}$                 -55 to +150


**UNITS**

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

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=10\text{mA}$

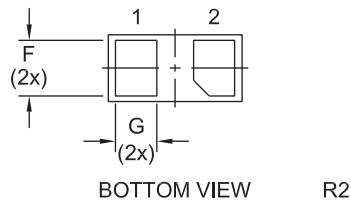
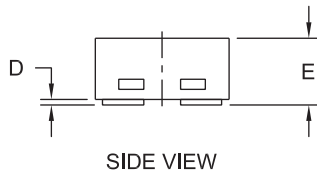
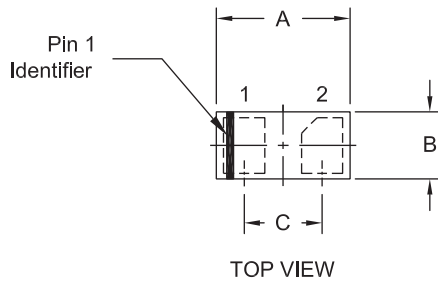
Maximum Reverse Stand-off Voltage $V_{RWM}$	Breakdown Voltage			Test Current $I_T$	Maximum Reverse Leakage Current $I_R @ V_{RWM}$	Maximum Clamping Voltage (8x20 $\mu\text{s}$ ) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL} @ I_{PP}$		Typical Dynamic Resistance (Note 1) $R_{DYN}$	Typical Junction Capacitance @ 0V Bias $C_J$
	MIN V	NOM V	MAX V			V	A	V	A		
4.0	5.8	6.2	6.6	5.0	1.0	10.7	3.0	7.0	1.5	0.54	25
								10	7.0		

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

**CTLTVS6V2**   
**SURFACE MOUNT SILICON  
 UNI-DIRECTIONAL  
 TRANSIENT VOLTAGE SUPPRESSOR**



**TLM2D3D6 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.022	0.026	0.55	0.65
B	0.010	0.014	0.25	0.35
C	0.014		0.35	
D	0.000	0.002	0.00	0.05
E	0.011	0.013	0.28	0.32
F	0.008	0.012	0.20	0.30
G	0.005	0.009	0.13	0.24

TLM2D3D6 (REV: R2)

**LEAD CODE:**

- 1) Cathode
- 2) Anode

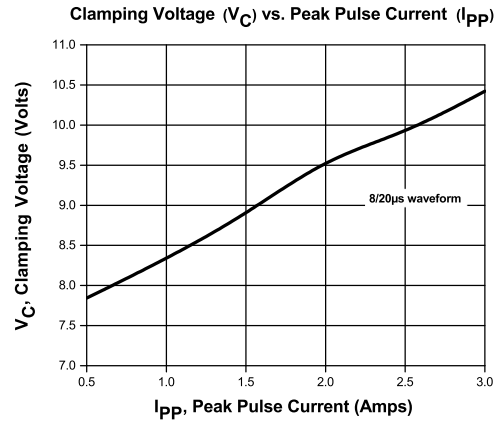
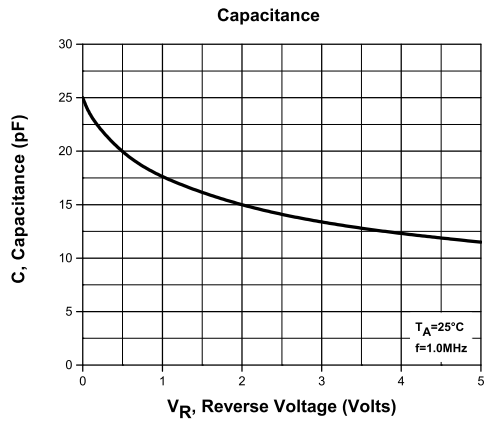
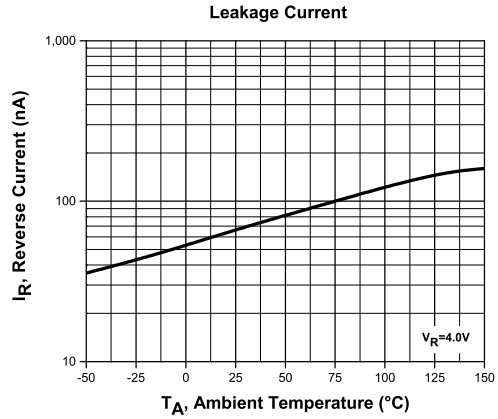
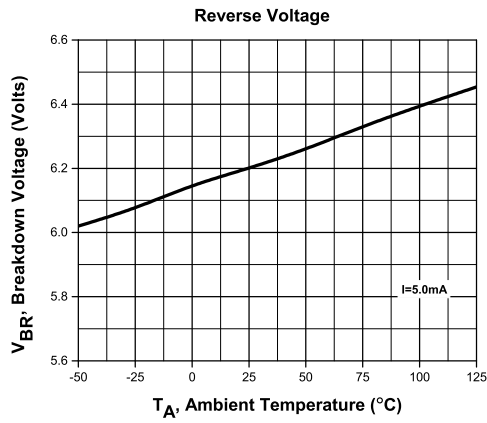
**MARKING CODE: S**

R3 (26-October 2015)

  
**CTLTVS6V2**  
**SURFACE MOUNT SILICON**  
**UNI-DIRECTIONAL**  
**TRANSIENT VOLTAGE SUPPRESSOR**



**TYPICAL ELECTRICAL CHARACTERISTICS**

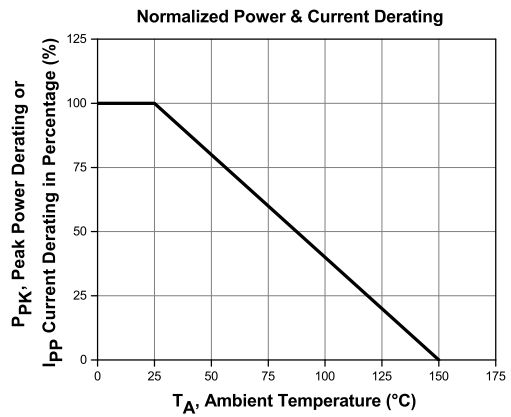
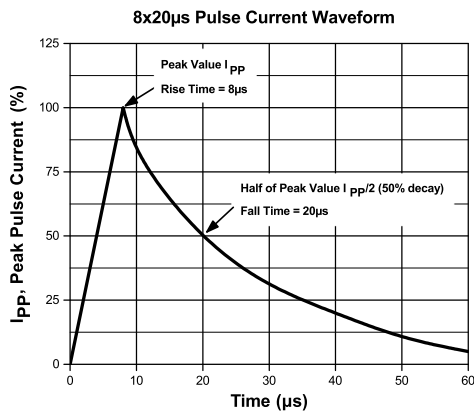
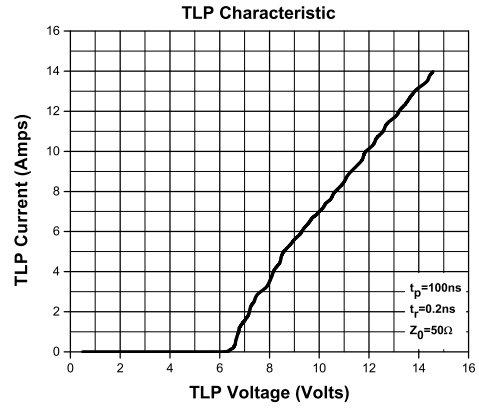
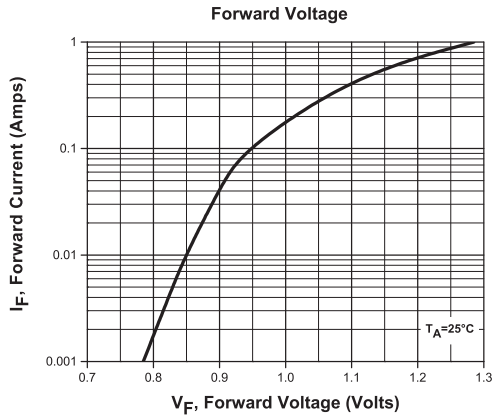


R3 (26-October 2015)

  
**CTLTVS6V2**  
**SURFACE MOUNT SILICON**  
**UNI-DIRECTIONAL**  
**TRANSIENT VOLTAGE SUPPRESSOR**



**TYPICAL ELECTRICAL CHARACTERISTICS**



R3 (26-October 2015)

## 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 (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

---

### 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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

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)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Central Semiconductor:](#)

[CTLTVS6V2 TR](#)