

**CTLTVS12**

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



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTLTVS12 is a low leakage, fast response TVS packaged in an ultra small, ultra low profile surface mount package. This device is designed to protect sensitive equipment against ESD damage.

**MARKING CODE: O**



**APPLICATIONS:**

- PDAs
- Memory Card Ports
- Cellular Phones
- Instrumentation

**FEATURES:**

- Ultra Small, Ultra Low Profile 0.3mm x 0.6mm x 0.3mm Leadless Surface Mount package
- Low Capacitance
- Low Leakage Current

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

Peak Power Dissipation (8x20µs)  
 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<sub>PK</sub>                      35  
 EFT                          40  
 V<sub>ESD</sub>                      30  
 V<sub>ESD</sub>                      30  
 T<sub>J</sub>, T<sub>stg</sub>                    -55 to +150


**UNITS**

W  
 A  
 kV  
 kV  
 °C

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C) V<sub>F</sub>=1.0V MAX @ I<sub>F</sub>=10mA

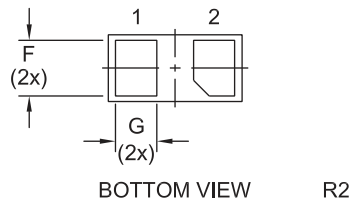
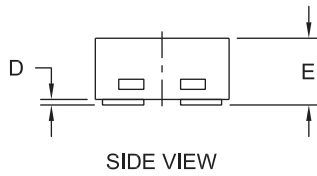
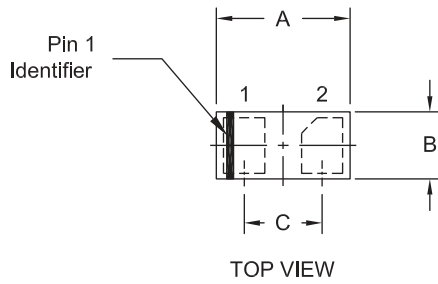
Maximum Reverse Stand-off Voltage V <sub>RWM</sub>	Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub>			Test Current I <sub>T</sub>	Maximum Reverse Leakage Current I <sub>R</sub> @ V <sub>RWM</sub>	Maximum Clamping Voltage (8x20µs) V <sub>C</sub> @ I <sub>PP</sub>		Typical TLP Clamping Voltage (Note 1) V <sub>CL</sub> @ I <sub>PP</sub>		Typical Dynamic Resistance (Note 1) R <sub>DYN</sub>	Typical Junction Capacitance @ 0V Bias C <sub>J</sub>	Typical Junction Capacitance @ 9V Bias C <sub>J</sub>
	MIN V	NOM V	MAX V			V	A	V	A			
9.0	10	12	14	5.0	1.0	18	1.8	6.0	6.0	0.71	14	5.0
								11	13			

Note 1: Transmission Line Pulse (TLP) conditions: Z<sub>0</sub>=50Ω, t<sub>p</sub>=100ns

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**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

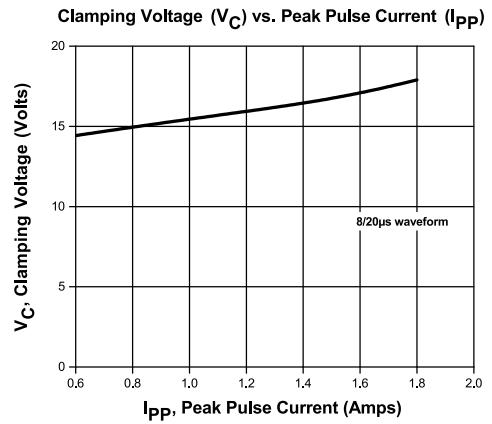
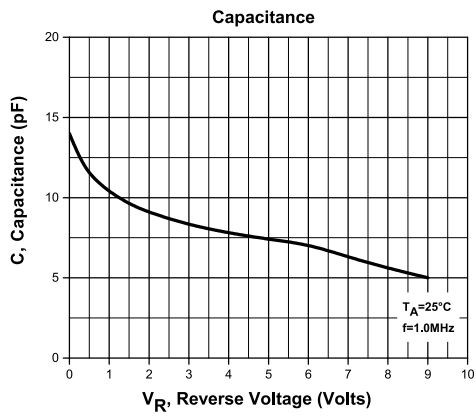
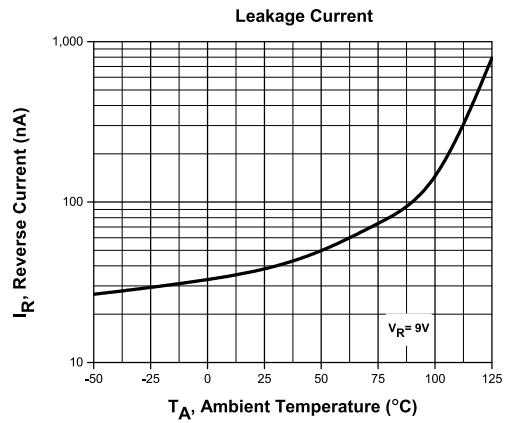
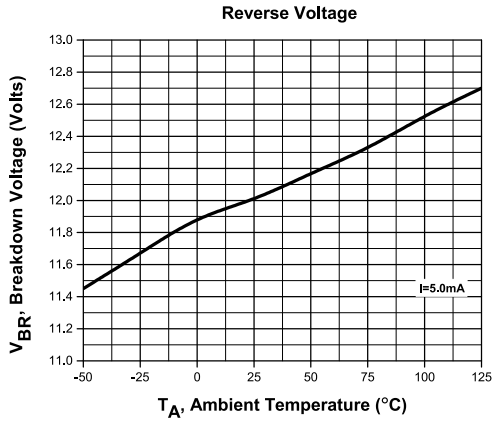
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R3 (23-October 2015)

  
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**TYPICAL ELECTRICAL CHARACTERISTICS**



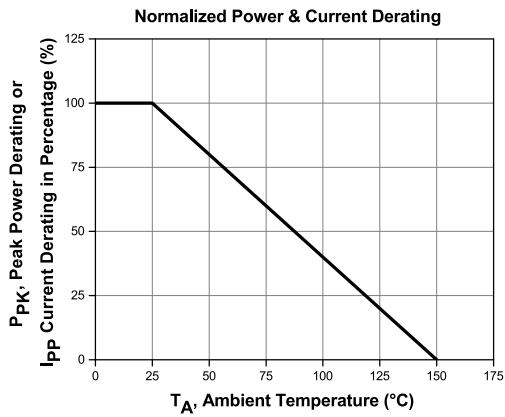
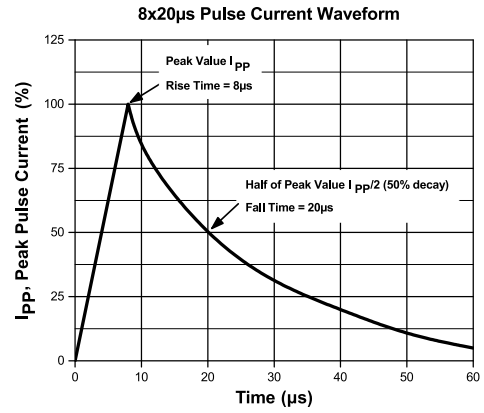
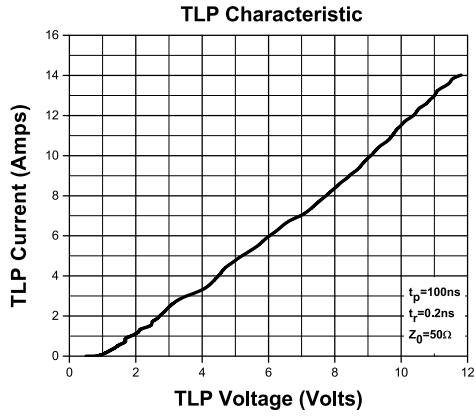
R3 (23-October 2015)

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**TYPICAL ELECTRICAL CHARACTERISTICS**



R3 (23-October 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](http://www.centrasemi.com)

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http://www.centrasemi.com

# Product End of Life Notification

<b>PDN ID:</b>	PDN01208
<b>Notification Date:</b>	2/14/22
<b>Last Buy Date:</b>	8/14/22
<b>Last Shipment Date</b>	2/14/23

Summary: The CTLTVS12 TVS is discontinued and now classified as End 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.

**\* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

<b>Central Part Number</b>	<b>Suggested Replacement</b>
CTLTVS12 BK	N/A
CTLTVS12 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. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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.