

CTLTVS12

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



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

Peak Power Dissipation (8x20 μs)
 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} 30
 V_{ESD} 30
 T_J, T_{stg} -55 to +150


UNITS

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

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

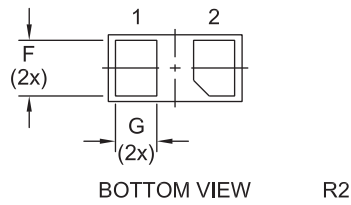
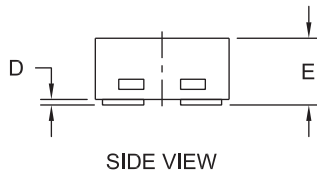
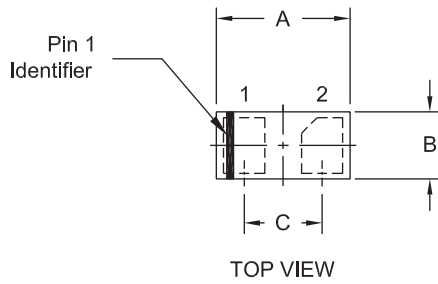
Maximum Reverse Stand-off Voltage V_{RWM}	Breakdown Voltage $V_{BR @ I_T}$			Test Current I_T	Maximum Reverse Leakage Current $I_R @ V_{RWM}$	Maximum Clamping Voltage (8x20 μs) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL @ I_{PP}}$		Typical Dynamic Resistance (Note 1) R_{DYN}	Typical Junction Capacitance @ 0V Bias C_J	Typical Junction Capacitance @ 9V Bias C_J
	V	MIN V	NOM V			MAX V	mA	μA	V			
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: $Z_0=50\Omega$, $t_p=100\text{ns}$


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TLM2D3D6 CASE - MECHANICAL OUTLINE



SYMBOL	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

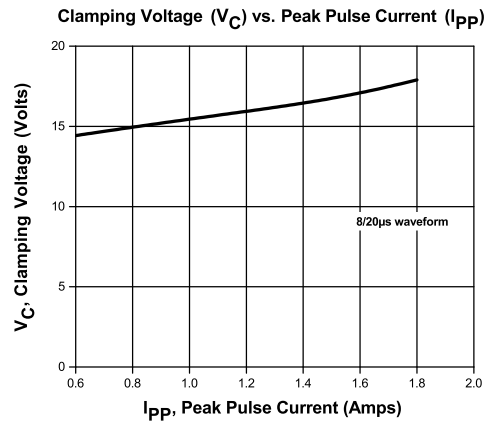
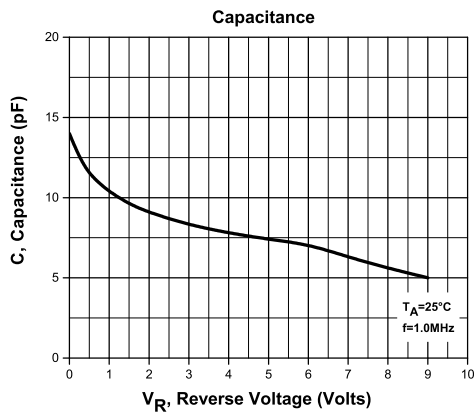
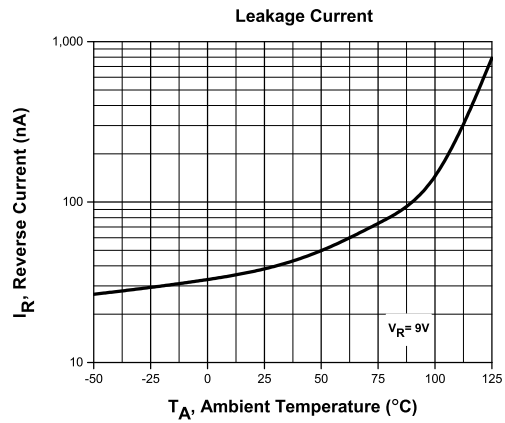
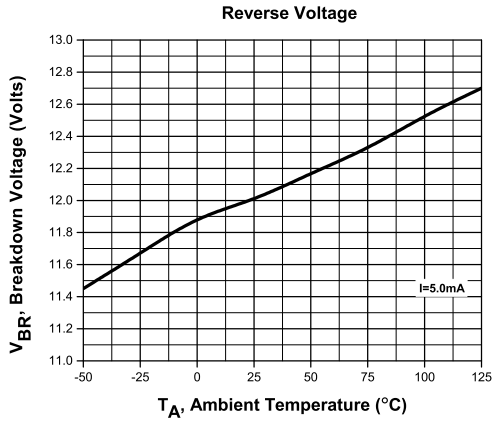
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TYPICAL ELECTRICAL CHARACTERISTICS



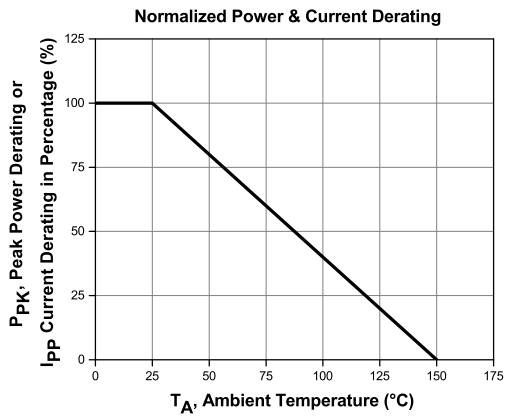
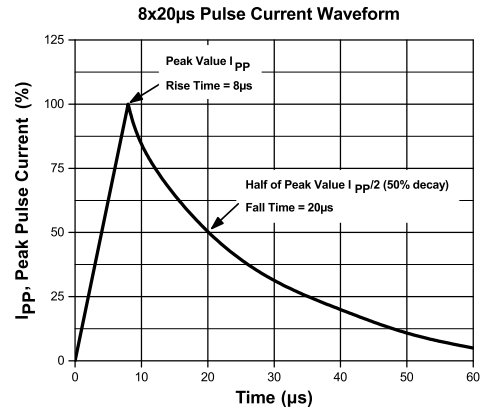
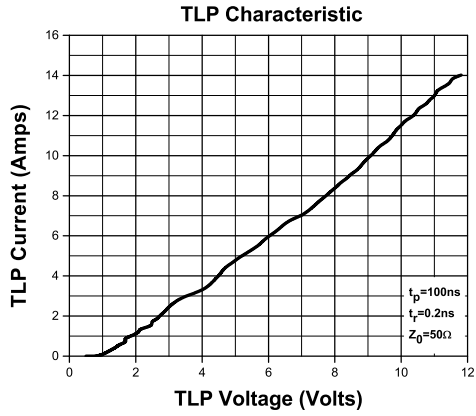
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TYPICAL ELECTRICAL CHARACTERISTICS



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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

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