


CTLTVS5V0B 

**SURFACE MOUNT SILICON
BI-DIRECTIONAL
LOW CAPACITANCE
TRANSIENT VOLTAGE SUPPRESSOR**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLTVS5V0B is a low capacitance, ultra low leakage, fast response, bi-directional TVS in the space saving TLM2D3D6 surface mount package. This device is designed to protect sensitive equipment connected to high speed data lines against ESD damage.

MARKING CODE: 5



APPLICATIONS:

- High speed data line protection
- User interface protection
- Charging/power port protection
- Serial/parallel port protection

FEATURES:

- Ultra space saving TLM2D3D6 package
- Low capacitance
- Ultra 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 Junction Temperature
 Storage Temperature

SYMBOL

P_{PK} 30
 EFT 40
 V_{ESD} 16
 V_{ESD} 16
 T_J -55 to +125
 T_{stg} -55 to +150


UNITS

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

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

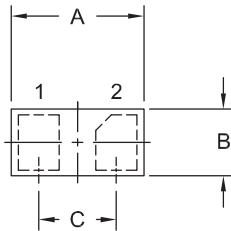
Maximum Reverse Stand-off Voltage V_{RWM}	Breakdown Voltage		Test Current I_T	Maximum Reverse Leakage Current $I_R @ V_{RWM}$	Maximum Clamping Voltage (8x20 μs) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL} @ I_{PP}$		Typical Dynamic Resistance (Note 1) R_{DYN}	Maximum Junction Capacitance @ 0V Bias C_J
	MIN V	MAX V			V	A	V	A		
5.0	5.5	10	1.0	0.1	12	1.0	9.5	4.0	0.5	3.5
					15	2.0	11.5	8.0		

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

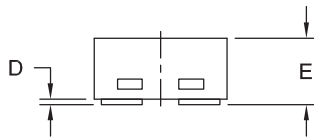
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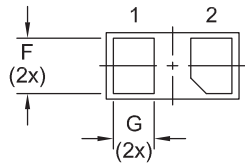
TLM2D3D6 CASE - MECHANICAL OUTLINE



TOP VIEW



SIDE VIEW



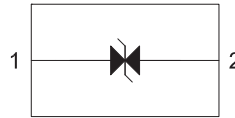
BOTTOM VIEW

R2

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)

PIN CONFIGURATION



LEAD CODE:

- 1) Anode 1
- 2) Anode 2

MARKING CODE: 5

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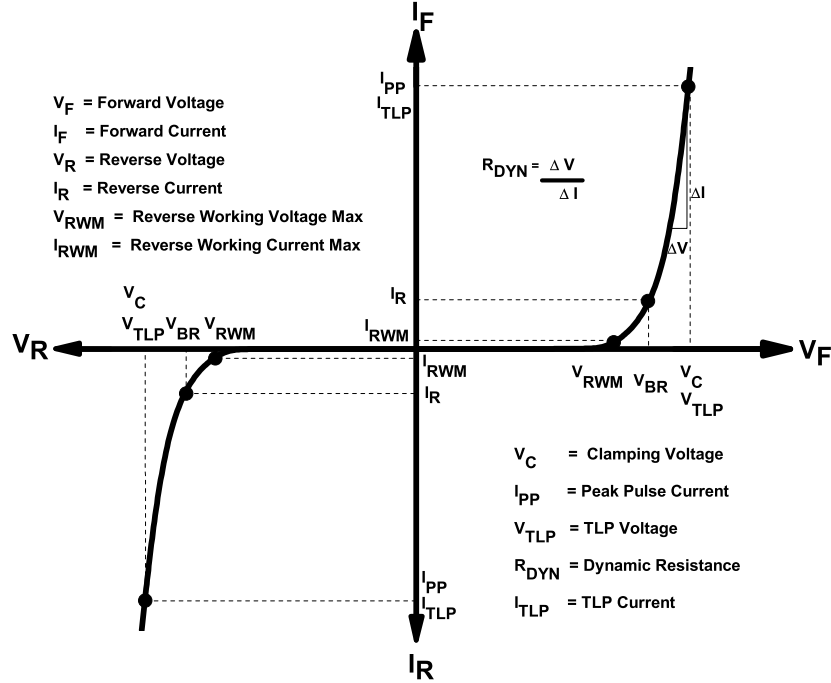
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Definition of Electrical Characteristics

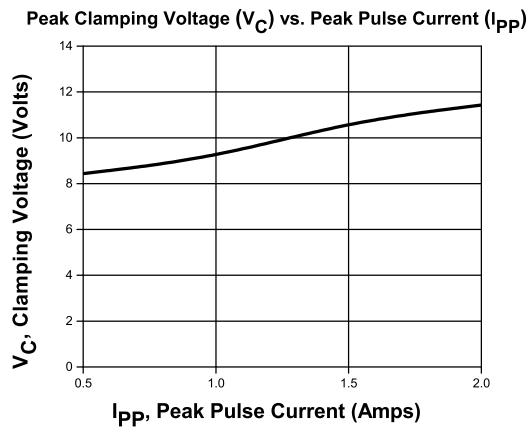
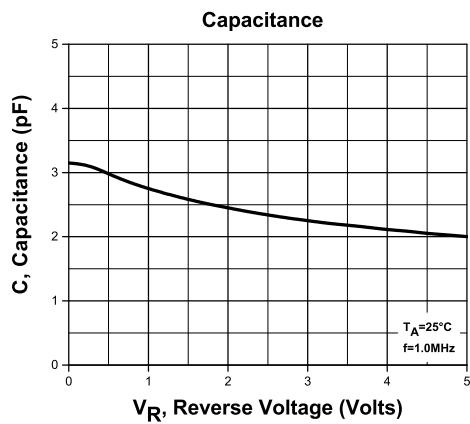
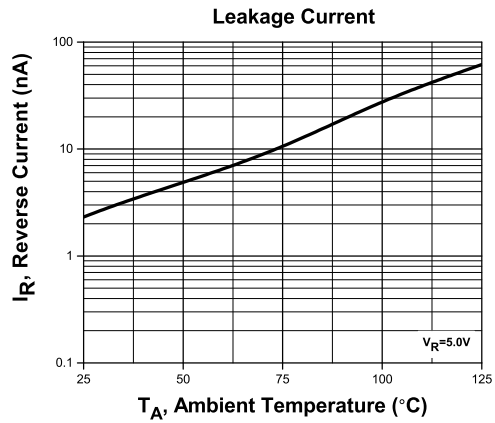
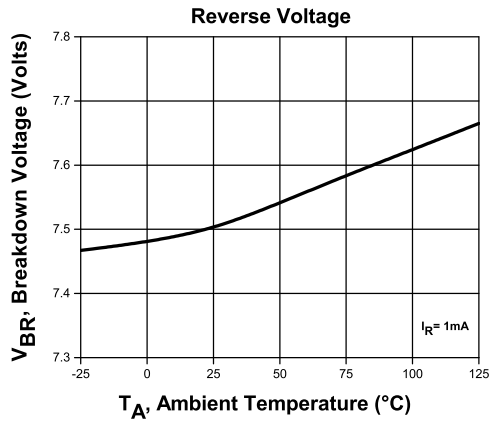


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TYPICAL ELECTRICAL CHARACTERISTICS



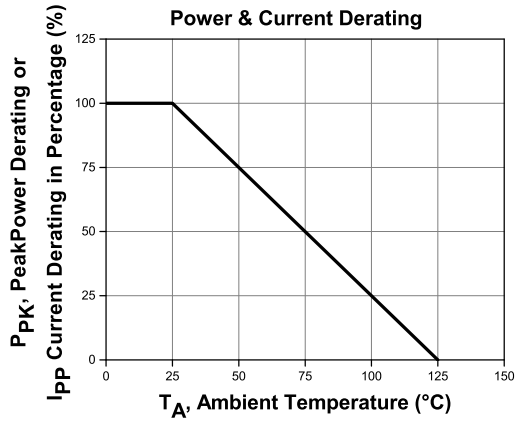
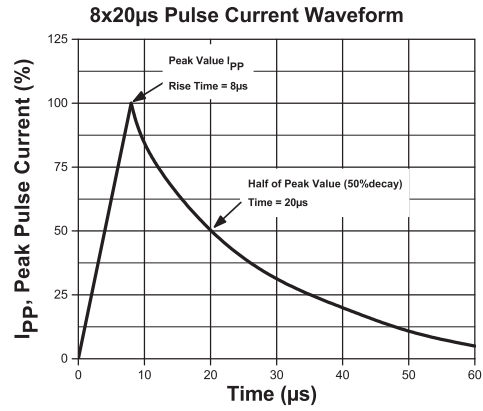
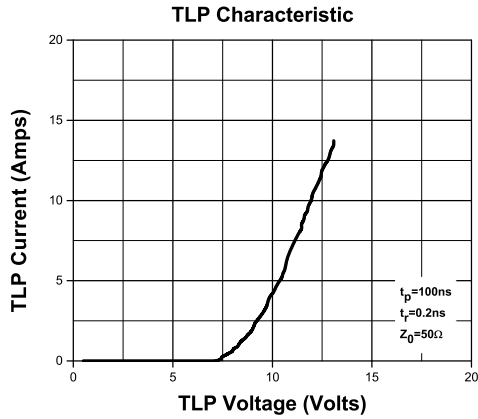
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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