

# CTLTVS12

## SURFACE MOUNT SILICON TRANSIENT VOLTAGE SUPPRESSOR



Top View Bottom View

### TLM2D3D6 CASE



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 $\mu\text{s}$ )

ESD Voltage (IEC 61000-4-2, Air)

ESD Voltage (IEC 61000-4-2, Contact)

Operating and Storage Junction Temperature

#### SYMBOL

$P_{PK}$

$V_{ESD}$

$V_{ESD}$

$T_J, T_{stg}$

35

30

30

-55 to +150

#### UNITS

W

kV

kV

$^{\circ}\text{C}$

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

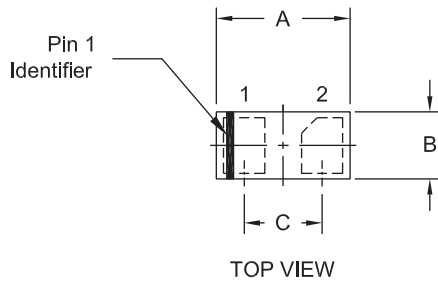
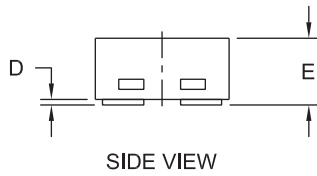
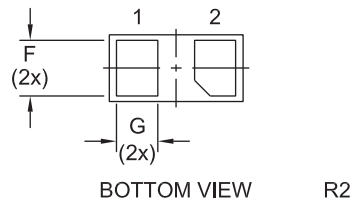
| Maximum Reverse Stand-off Voltage<br>$V_{RWM}$ | Breakdown Voltage<br>$V_{BR @ I_T}$ |       |       | Test Current<br>$I_T$ | Maximum Reverse Leakage Current<br>$I_R @ V_{RWM}$ | Maximum Clamping Voltage<br>$V_C @ I_{PP}$ | Peak Pulse Current<br>$I_{PP}$ | Typical Capacitance @ 0V Bias | Typical Capacitance @ 9V Bias |
|------------------------------------------------|-------------------------------------|-------|-------|-----------------------|----------------------------------------------------|--------------------------------------------|--------------------------------|-------------------------------|-------------------------------|
| V                                              | MIN V                               | NOM V | MAX V | mA                    | $\mu\text{A}$                                      | V                                          | A                              | pF                            | pF                            |
| 9.0                                            | 10                                  | 12    | 14    | 5.0                   | 1.0                                                | 18                                         | 1.8                            | 14                            | 5.0                           |

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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: O**

R2 (2-April 2015)

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**SURFACE MOUNT SILICON**  
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**SERVICES**

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R2 (2-April 2015)