  
**CFTVS3V3B**  
**SURFACE MOUNT SILICON**  
**BI-DIRECTIONAL**  
**TRANSIENT VOLTAGE SUPPRESSOR**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CFTVS3V3B is a low leakage, fast response, bi-directional TVS in the space saving SOD-882 surface mount package. This device is designed to protect sensitive equipment connected to high speed data lines against ESD damage.



**MARKING CODE: 3**

**APPLICATIONS:**

- Data line protection
- User interface protection
- Charging/power port protection

**FEATURES:**

- Space saving SOD-882 package
- 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 Junction Temperature  
 Storage Temperature

**SYMBOL**

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


**UNITS**

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

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

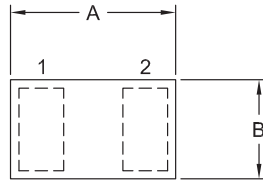
| Maximum Reverse Stand-off Voltage<br>$V_{RWM}$ | Minimum Breakdown Voltage<br>$V_{BR} @ I_T$ | Test Current<br>$I_T$ | Maximum Reverse Leakage Current<br>$I_R @ V_{RWM}$ | Maximum Clamping Voltage (8x20 $\mu\text{s}$ )<br>$V_C @ I_{PP}$ | Typical Clamping Voltage TLP (Note 1)<br>$V_C @ I_{PP}$ | Peak Pulse Current<br>$I_{PP}$ | Typical Dynamic Resistance (Note 1)<br>$R_{DYN}$ | Maximum Junction Capacitance @ 0V Bias<br>$C_J$ |
|--|---|-----------------------|--|--|---|--------------------------------|--|---|
| V  | V   | $\mu\text{A}$         | $\mu\text{A}$                                      | V  | V   | A                              | $\Omega$   | pF  |
| 3.3  | 3.5   | 2.0                   | 0.5  | 6.5  | 5.0   | 1.0                            | 0.25   | 10  |
|  |   |                       |  | 8.0  | 6.0   | 5.0                            |  |   |

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

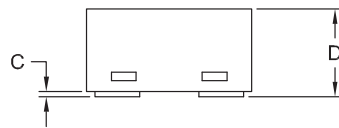
  
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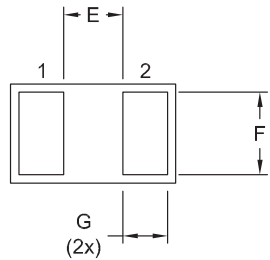
**SOD-882 CASE - MECHANICAL OUTLINE**



TOP VIEW



SIDE VIEW

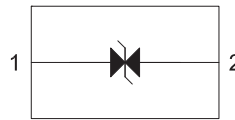


BOTTOM VIEW R2

| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.037  | 0.042 | 0.95        | 1.05 |
| B      | 0.022  | 0.026 | 0.55        | 0.65 |
| C      | 0.000  | 0.002 | 0.00        | 0.05 |
| D      | 0.017  | 0.022 | 0.45        | 0.55 |
| E      | 0.014  |       | 0.36        |      |
| F      | 0.017  | 0.022 | 0.45        | 0.55 |
| G      | 0.008  | 0.013 | 0.22        | 0.32 |

SOD-882 (REV:R2)

**PIN CONFIGURATION**




**LEAD CODE:**

- 1) Anode 1
- 2) Anode 2

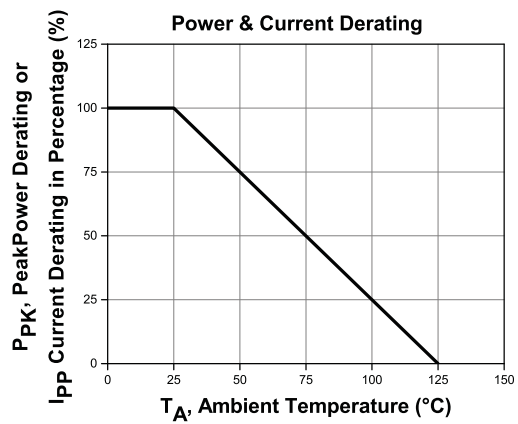
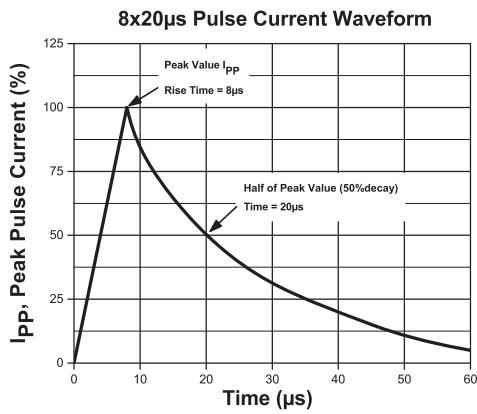
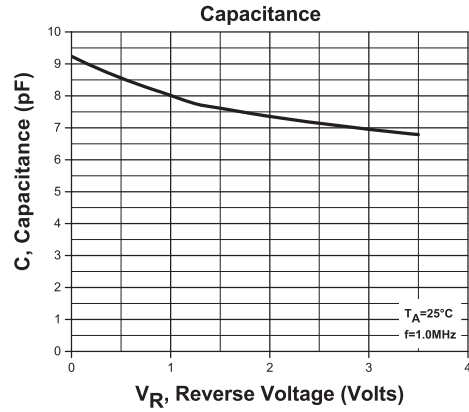
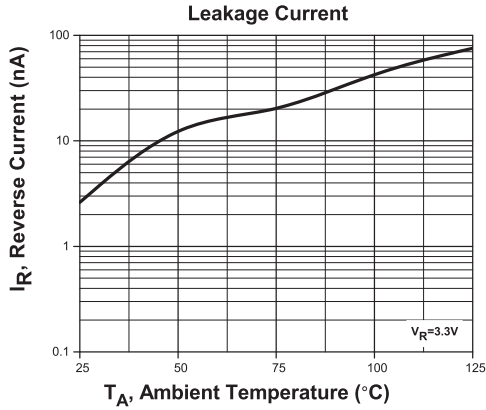
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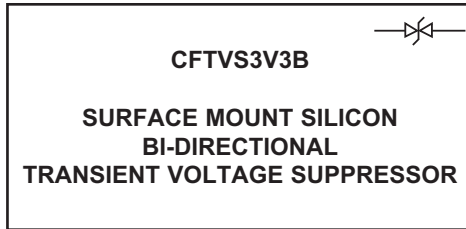
  
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**TYPICAL ELECTRICAL CHARACTERISTICS**



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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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