

CTLSH01-30

**SURFACE MOUNT SILICON  
SCHOTTKY DIODE**



Top View Bottom View

**TLM2D3D6 CASE**



[www.centra semi.com](http://www.centra semi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CTL SH01-30 is a high quality Schottky Diode designed for applications where ultra small size and power dissipation are prime requirements. Packaged in a TLM2D3D6 package, this component provides performance characteristics suitable for the most demanding size constrained applications.

**MARKING CODE: C**

**APPLICATIONS:**

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery powered applications including cell phones, digital cameras, pagers, PDAs, laptop computers, etc.

**FEATURES:**

- Current ( $I_O=100\text{mA}$ )
- Low forward voltage drop ( $V_F=0.41\text{V TYP @ }10\text{mA}$ )
- Low reverse current ( $30\text{nA TYP @ }10\text{V}$ )
- Ultra small, ultra low profile  $0.3\text{mm} \times 0.6\text{mm} \times 0.3\text{mm}$  leadless surface mount package

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

Peak Repetitive Reverse Voltage  
Average Forward Current  
Peak Forward Surge Current,  $t_p=8.3\text{ms}$   
Power Dissipation  
Operating Junction Temperature  
Storage Temperature  
Thermal Resistance

**SYMBOL**

|               |             |                    |
|---------------|-------------|--------------------|
| $V_{RRM}$     | 30          | V                  |
| $I_O$         | 100         | mA                 |
| $I_{FSM}$     | 500         | mA                 |
| $P_D$         | 100         | mW                 |
| $T_J$         | -65 to +125 | $^\circ\text{C}$   |
| $T_{stg}$     | -65 to +150 | $^\circ\text{C}$   |
| $\theta_{JA}$ | 1000        | $^\circ\text{C/W}$ |

**UNITS**

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

| SYMBOL | TEST CONDITIONS          | MIN | TYP  | MAX  | UNITS |
|--------|--------------------------|-----|------|------|-------|
| $I_R$  | $V_R=10\text{V}$         |     | 30   | 300  | nA    |
| $BV_R$ | $I_R=100\mu\text{A}$     | 30  |      |      | V     |
| $V_F$  | $I_F=10\text{mA}$        |     | 0.41 | 0.46 | V     |
| $C_J$  | $V_R=0, f=1.0\text{MHz}$ |     | 7.0  |      | pF    |

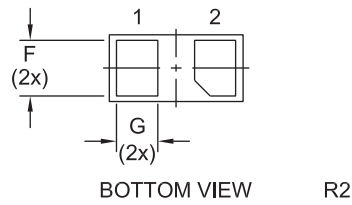
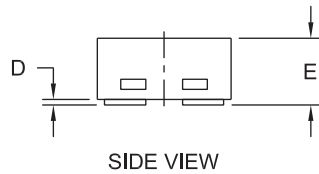
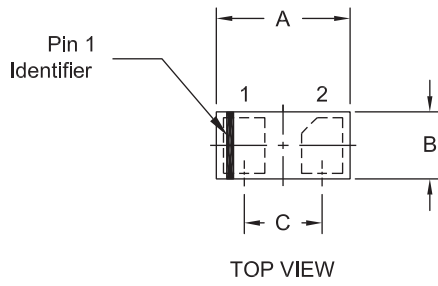
R4 (29-September 2015)

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**TLM2D3D6 CASE - MECHANICAL OUTLINE**



| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| 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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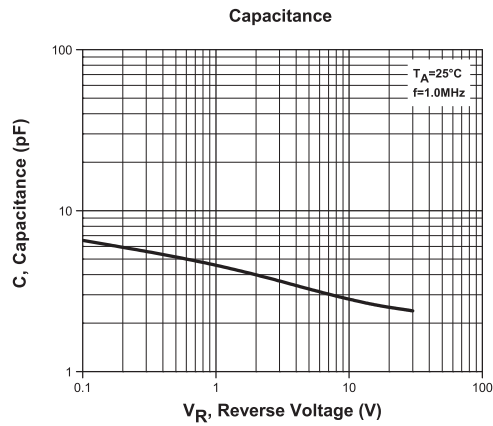
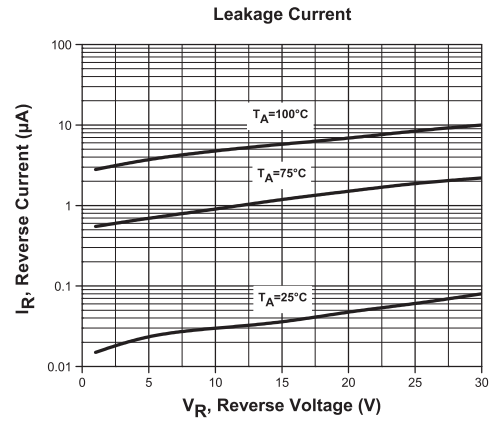
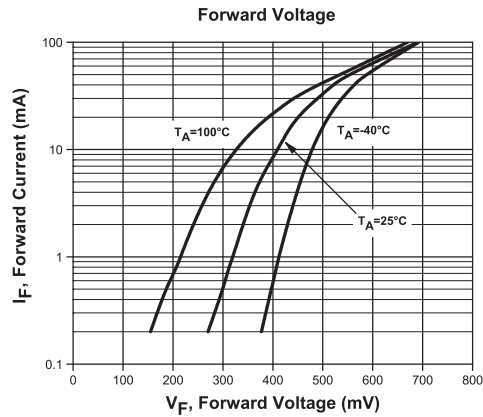
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TYPICAL ELECTRICAL CHARACTERISTICS



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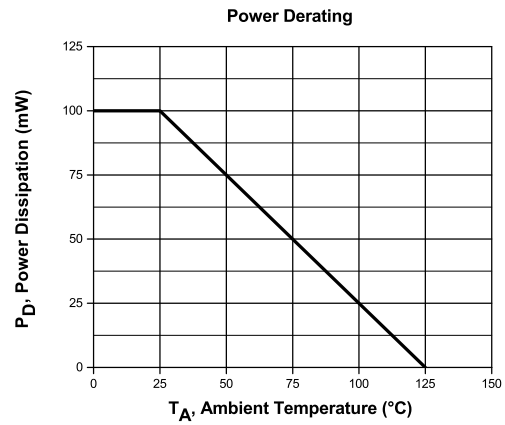
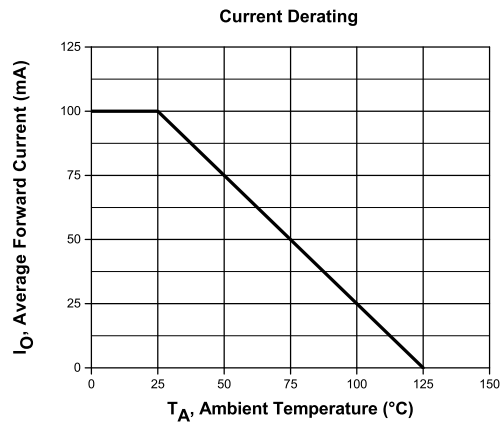
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TYPICAL ELECTRICAL CHARACTERISTICS



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## 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

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