

CTLSH01-30
SURFACE MOUNT SILICON
SCHOTTKY DIODE



www.centrasemi.com



Top View Bottom View
TLM2D3D6 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH01-30 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

| SYMBOL | | UNITS |
|---------------|-------------|--------------------|
| 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 | $^\circ\text{C}$ |
| θ_{JA} | 1000 | $^\circ\text{C/W}$ |

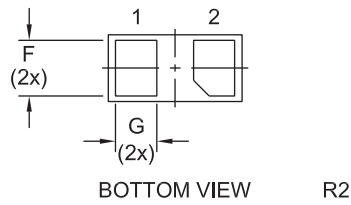
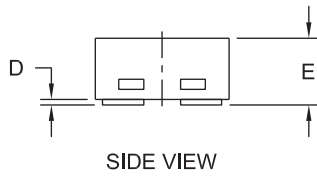
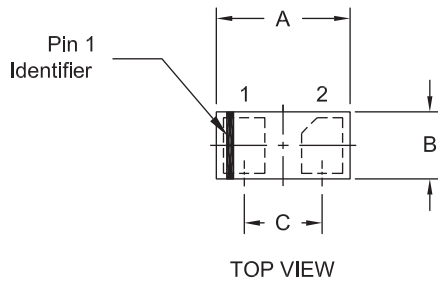
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| 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 |

CTLSH01-30
SURFACE MOUNT SILICON
SCHOTTKY DIODE



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: C

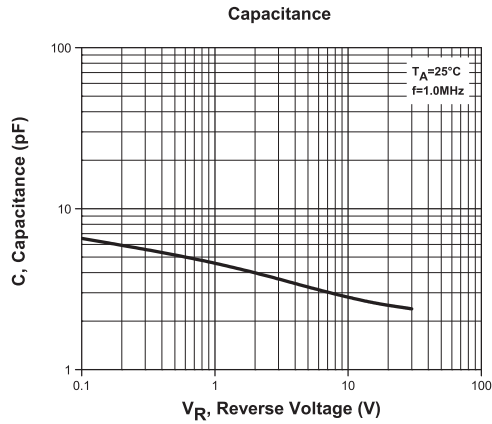
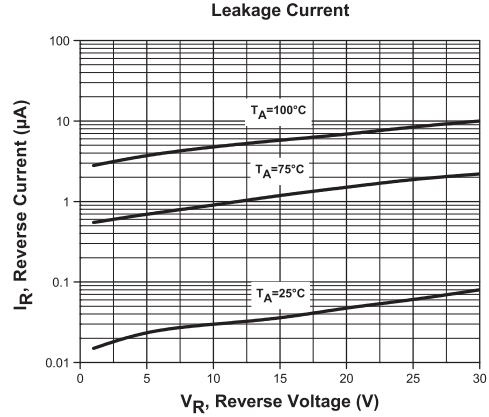
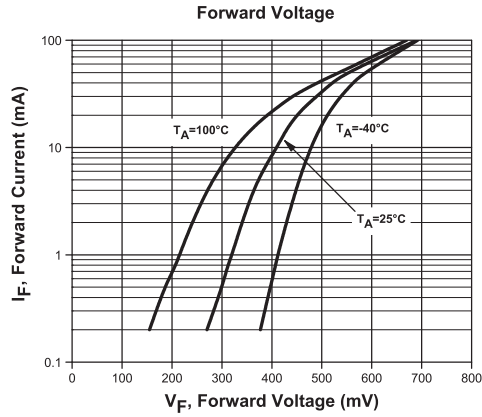
R2

R4 (29-September 2015)

CTLSH01-30
SURFACE MOUNT SILICON
SCHOTTKY DIODE



TYPICAL ELECTRICAL CHARACTERISTICS

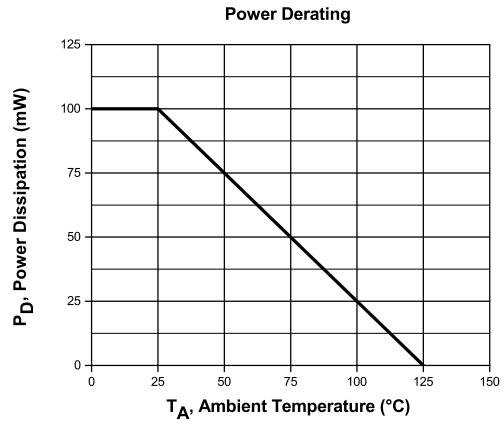
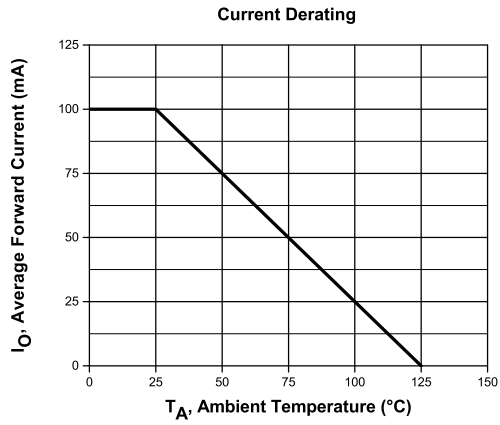


R4 (29-September 2015)

CTLSH01-30
SURFACE MOUNT SILICON
SCHOTTKY DIODE



TYPICAL ELECTRICAL CHARACTERISTICS



R4 (29-September 2015)

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

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).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms