

CTLSH01-30L

**SURFACE MOUNT SILICON
LOW V_F SCHOTTKY DIODE**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH01-30L is a high quality Schottky diode designed for applications where ultra small size and low forward voltage are prime requirements. This component provides performance characteristics suitable for the most demanding size constrained applications.

MARKING CODE: D



TLM2D3D6 CASE

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 ($V_F=300\text{mV TYP @ } 10\text{mA}$)
- Low Reverse Current ($1.3\mu\text{A TYP @ } 10\text{V}$)
- 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
DC Blocking 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
V_R	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)

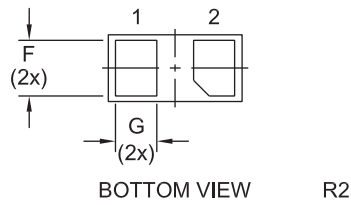
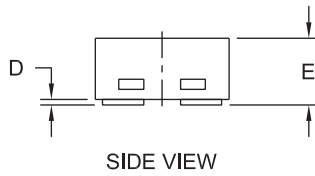
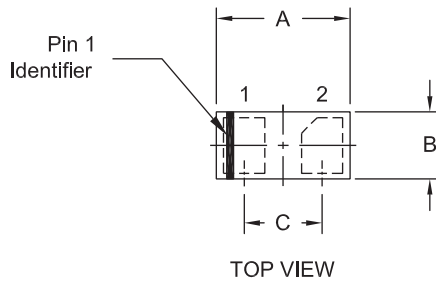
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=3.3\text{V}$		0.8	2.0	μA
I_R	$V_R=10\text{V}$		1.3	7.0	μA
BV_R	$I_R=100\mu\text{A}$	30			V
V_F	$I_F=5.0\mu\text{A}$		70	95	mV
V_F	$I_F=10\text{mA}$		300	370	mV
C_J	$V_R=0, f=1.0\text{MHz}$		4.0		pF

R3 (5-January 2015)

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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: D

R3 (5-January 2015)

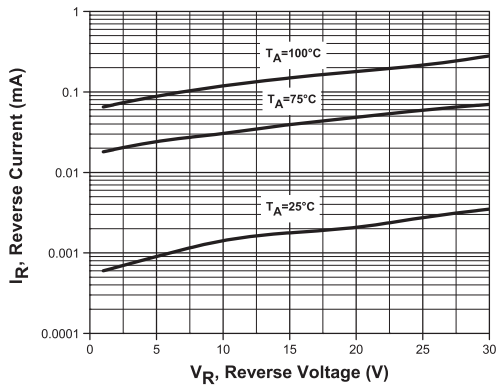
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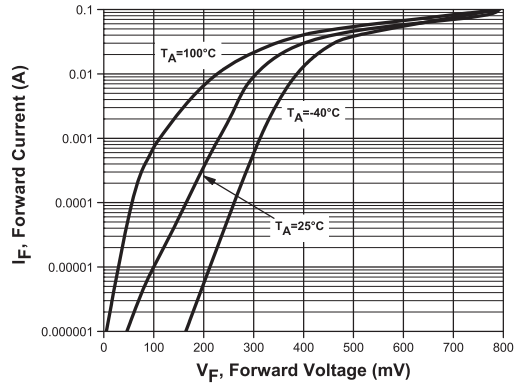


TYPICAL ELECTRICAL CHARACTERISTICS

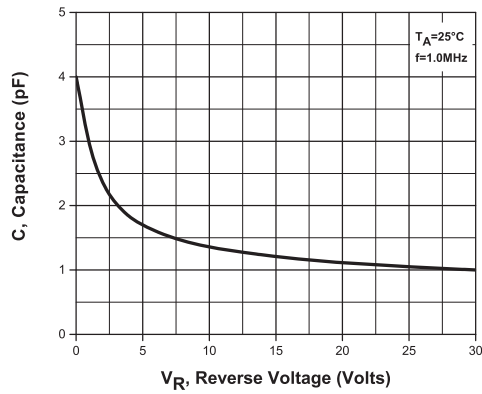
Leakage Current



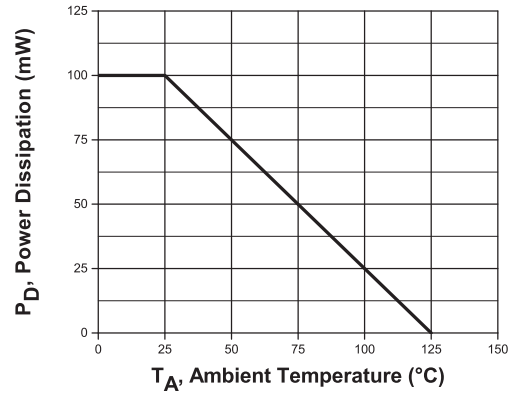
Forward Voltage



Capacitance



Power Derating



R3 (5-January 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

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