

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)

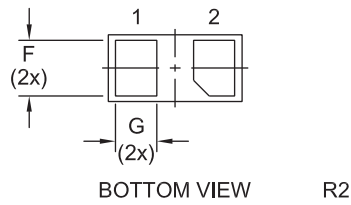
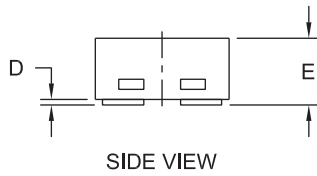
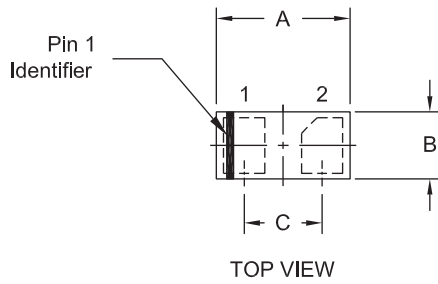
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=3.3\text{V}$		0.8	2.0	μA
I_R	$V_R=10\text{V}$		1.3	7.0	μA
BV_R	$I_R=100\mu\text{A}$	30			V
V_F	$I_F=5.0\mu\text{A}$		70	95	mV
V_F	$I_F=10\text{mA}$		300	370	mV
C_J	$V_R=0, f=1.0\text{MHz}$		4.0		pF

R3 (5-January 2015)

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TLM2D3D6 CASE - MECHANICAL OUTLINE



SYMBOL	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

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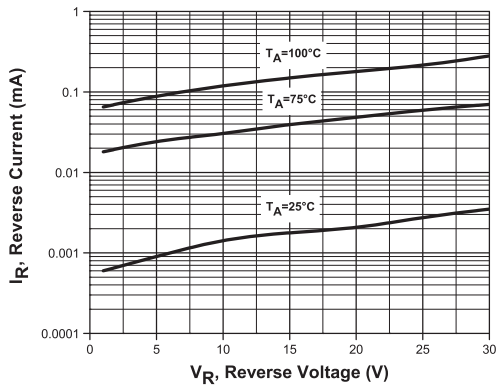
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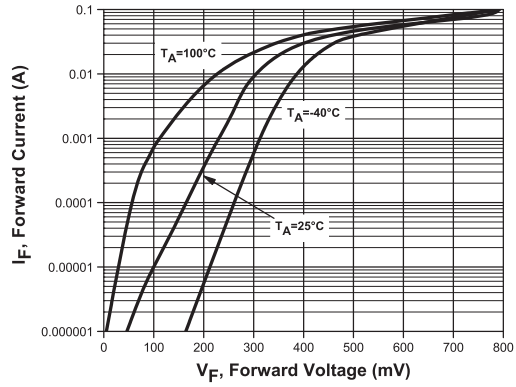


TYPICAL ELECTRICAL CHARACTERISTICS

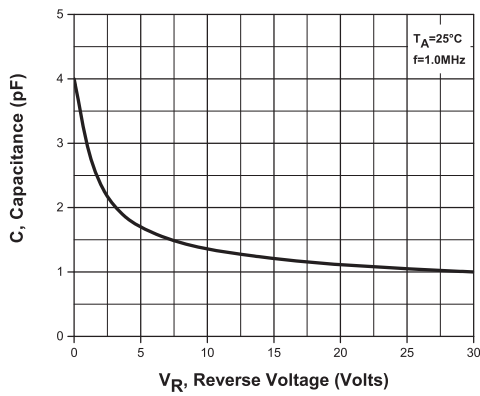
Leakage Current



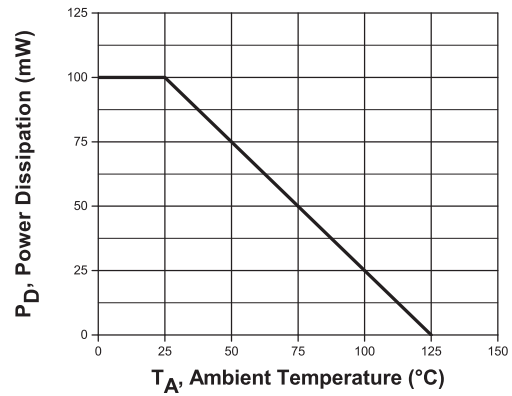
Forward Voltage



Capacitance



Power Derating



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SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
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- Custom Device Development/ Multi Discrete Modules (MDM™)
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R3 (5-January 2015)