

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

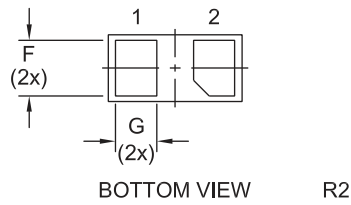
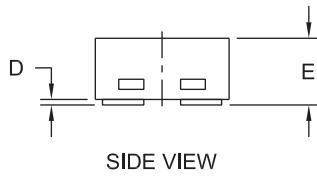
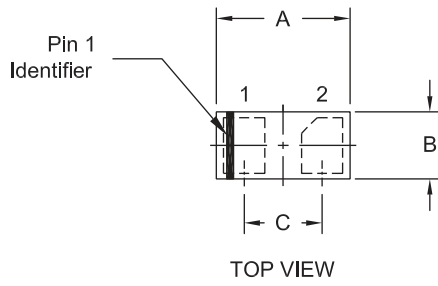
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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

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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: C

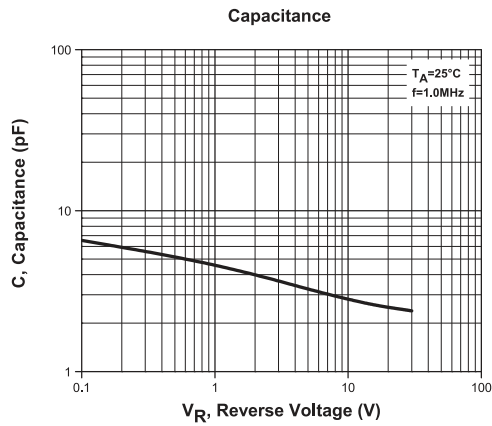
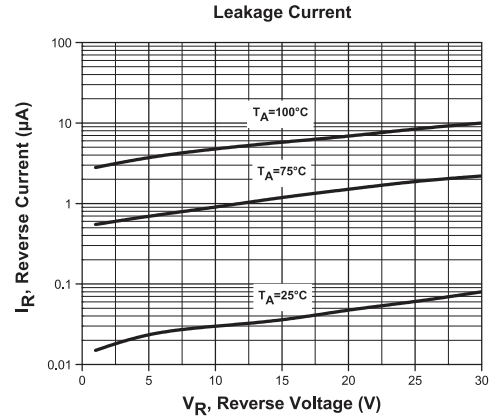
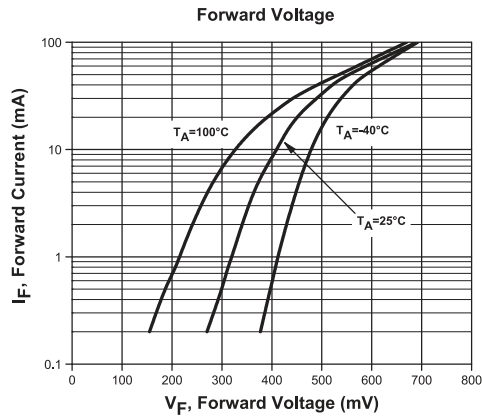
R2

R4 (29-September 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

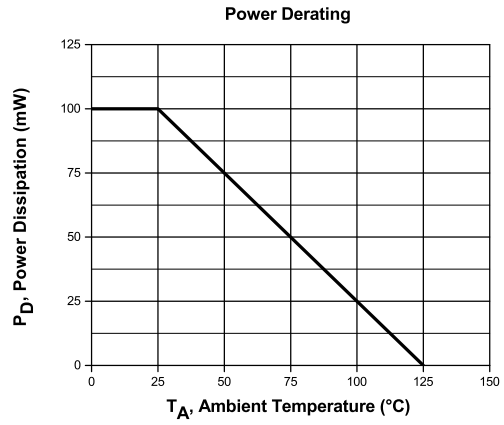
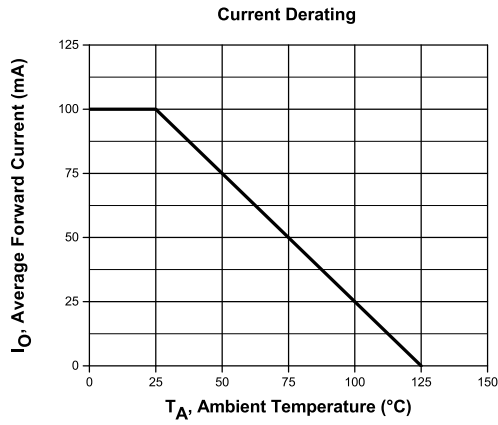


R4 (29-September 2015)

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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).

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