

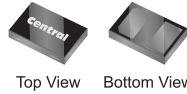
CFD4448

**SURFACE MOUNT  
ULTRA HIGH SPEED  
SILICON SWITCHING DIODE**



www.centrasemi.com

**TLP**™  
Tiny  
Leadless  
Package



**SOD-882L CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CFD4448 is an ultra high speed switching diode ideal for applications where very small size and operational efficiency are prime requirements.

**MARKING CODE: X**

**APPLICATIONS:**

- General Purpose Switching
- DC - DC Converters
- Flyback Diodes
- Polarity Protection
- Battery powered applications including Cell Phones, Digital Cameras, Pagers, PDAs, Laptop Computers, etc.

**FEATURES:**

- Current ( $I_O=250\text{mA}$ )
- Forward Voltage Drop ( $V_F=0.91\text{V TYP @ }100\text{mA}$ )
- Extremely Fast Switching Speed (4ns Max)
- Small TLP, 1.0 x 0.6 x 0.4mm, Ultra Low Profile Leadless Surface Mount Package.

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

Peak Repetitive Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current  
 Peak Forward Surge Current,  $t_p=1.0\mu\text{s}$   
 Peak Forward Surge Current,  $t_p=1.0\text{s}$   
 Power Dissipation  
 Operating and Storage Junction Temperature  
 Thermal Resistance

**SYMBOL**

SYMBOL		UNITS
$V_{RRM}$	120	V
$I_F$	250	mA
$I_{FRM}$	500	mA
$I_{FSM}$	4.0	A
$I_{FSM}$	1.0	A
$P_D$	100	mW
$T_J, T_{stg}$	-65 to +175	$^\circ\text{C}$
$\theta_{JA}$	1500	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=50\text{V}$			300	nA
$I_R$	$V_R=50\text{V}, T_A=125^\circ\text{C}$			100	$\mu\text{A}$
$I_R$	$V_R=100\text{V}$			500	nA
$BV_R$	$I_R=100\mu\text{A}$	120	150		V
$V_F$	$I_F=1.0\text{mA}$	0.55	0.59	0.65	V
$V_F$	$I_F=10\text{mA}$	0.67	0.72	0.77	V
$V_F$	$I_F=100\text{mA}$	0.85	0.91	1.0	V
$C_T$	$V_R=0, f=1.0\text{MHz}$			2.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		2.0	4.0	ns

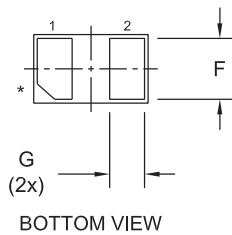
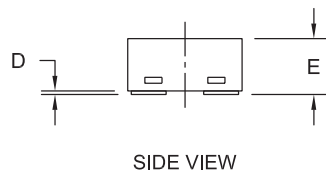
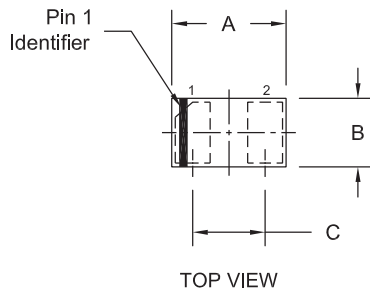
R3 (28-September 2011)

CFD4448

**SURFACE MOUNT  
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**SOD-882L CASE - MECHANICAL OUTLINE**



\* Pin 1 chamfer may appear on any corner.

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.041	0.95	1.05
B	0.022	0.026	0.55	0.65
C	0.026		0.65	
D	0.000	0.002	0.00	0.05
E	0.012	0.016	0.30	0.40
F	0.018	0.022	0.45	0.55
G	0.008	0.012	0.20	0.30

SOD-882L (REV:R2)

**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: X**

R2

R3 (28-September 2011)

## 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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