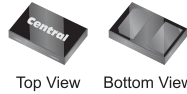


CFSH05-20L

**SURFACE MOUNT SILICON
LOW V_F SCHOTTKY DIODE
0.5 AMP, 20 VOLT**

TLP
Tiny
Leadless
Package



SOD-882L CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CFSH05-20L is a silicon Schottky diode designed for applications where ultra small package size and energy efficiency are prime requirements. Packaged in the SOD-882L ultra low profile leadless case, this device provides exceptionally low forward voltage characteristics suitable for the most demanding size constrained battery powered applications.

MARKING CODE: 2

APPLICATIONS:

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery powered hand-held applications including cell phones, digital cameras, tablets and laptop computers

FEATURES:

- Current ($I_O=500\text{mA}$)
- Low forward voltage drop ($V_F=220\text{mV TYP @ } 10\text{mA}$)
- Low reverse current ($8.0\mu\text{A TYP @ } 10\text{V}$)
- Small, ultra low profile $1.0\text{mm} \times 0.6\text{mm} \times 0.4\text{mm}$ TLP™ 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 and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{RRM}	20
V_R	20
I_O	500
I_{FSM}	3.0
P_D	100
T_J, T_{stg}	-65 to +150
Θ_{JA}	1000

UNITS

V
V
mA
A
mW
$^\circ\text{C}$
$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=10\text{V}$		8.0	30	μA
BV_R	$I_R=500\mu\text{A}$	20			V
V_F	$I_F=0.1\text{mA}$		100	180	mV
V_F	$I_F=1.0\text{mA}$		160	240	mV
V_F	$I_F=10\text{mA}$		220	290	mV
V_F	$I_F=100\text{mA}$		310	380	mV
V_F	$I_F=500\text{mA}$		450	500	mV
C_J	$V_R=1.0\text{V}, f=1.0\text{MHz}$		21	30	pF

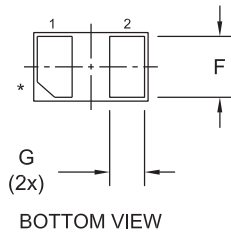
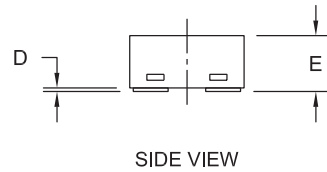
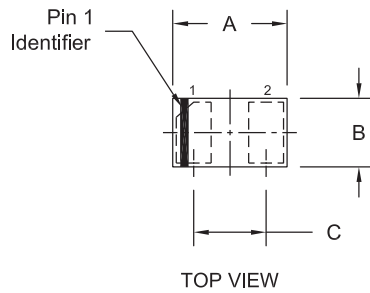
R2 (25-April 2013)

CFSH05-20L

SURFACE MOUNT SILICON
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0.5 AMP, 20 VOLT



SOD-882L CASE - MECHANICAL OUTLINE



* Pin 1 chamfer may
appear on any corner.

DIMENSIONS				
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: 2

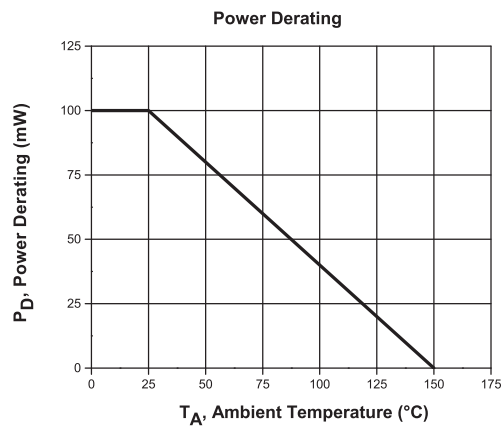
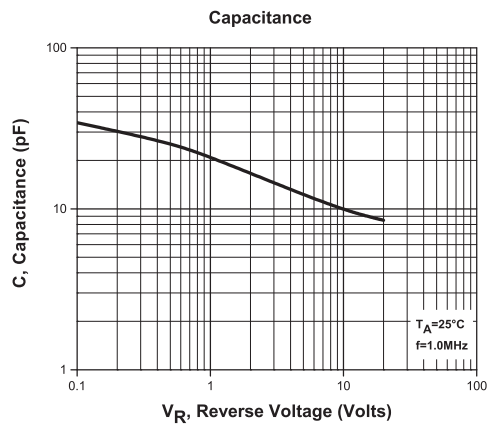
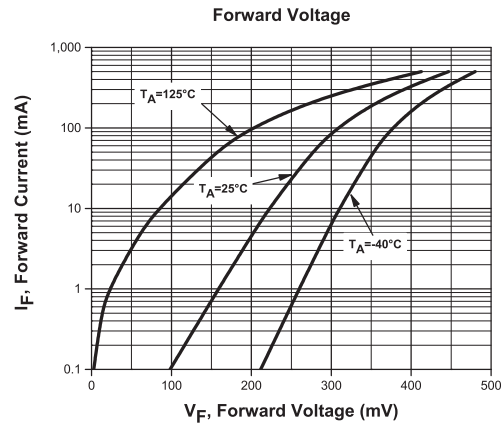
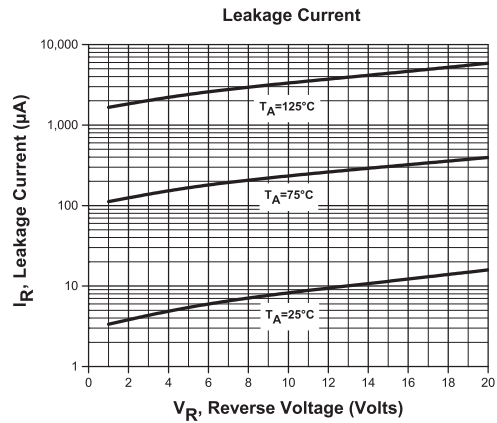
R2 (25-April 2013)

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SURFACE MOUNT SILICON
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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (25-April 2013)

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

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