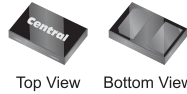


CFSH05-20L

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

TLP
Tiny
Leadless
Package



SOD-882L CASE



www.centrasemi.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 |

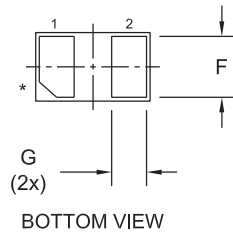
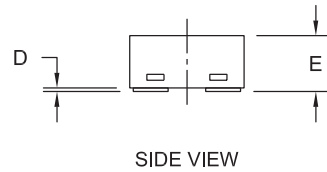
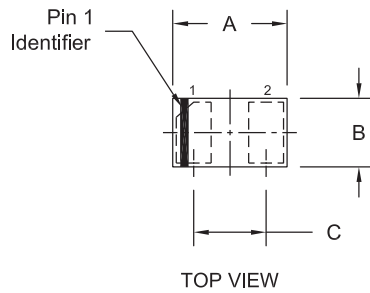
R2 (25-April 2013)

CFSH05-20L

SURFACE MOUNT SILICON
LOW V_F SCHOTTKY DIODE
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

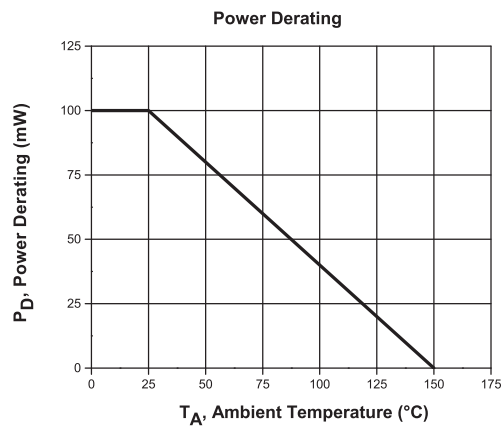
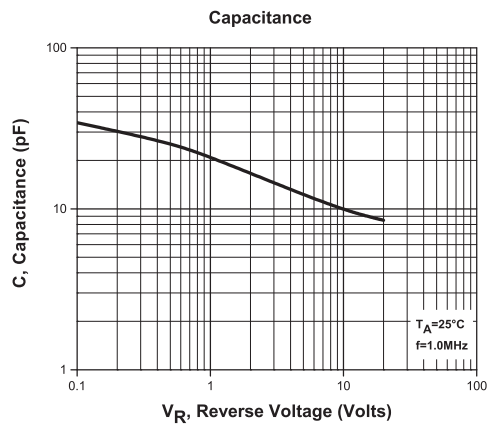
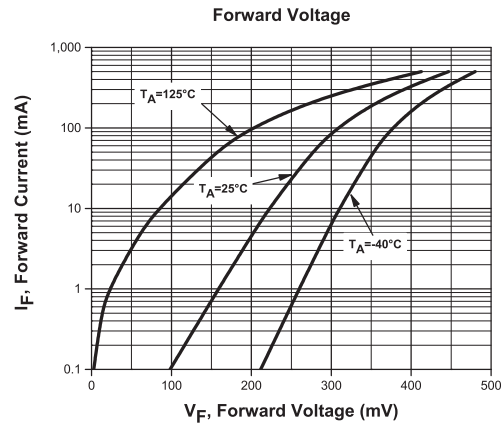
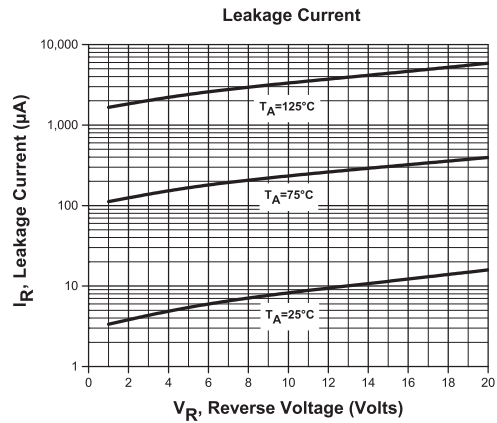
R2 (25-April 2013)

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



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

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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