

CFSH-4**SURFACE MOUNT SILICON
SCHOTTKY DIODE**
www.centrasemi.com
**SOD-882L CASE****APPLICATIONS:**

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery powered applications including cell phones, digital cameras, pagers, PDAs, laptop computers, etc.

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 |

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CFSH-4 is a high quality Schottky diode designed for applications where ultra small size and power dissipation are prime requirements. Packaged in the space saving SOD-882L surface mount package, this component provides performance characteristics suitable for the most demanding size constrained applications.

MARKING CODE: L**FEATURES:**

- Device is **Halogen Free** by design
- Current ($I_O=200\text{mA}$)
- Low forward voltage drop ($V_F=0.35\text{V TYP @ } 1.0\text{mA}$)
- Low reverse current ($25\text{nA TYP @ } 30\text{V}$)
- Extremely fast switching (5.0ns MAX)
- Small $1\text{mm} \times 0.6\text{mm} \times 0.4\text{mm}$, SOD-882L, ultra low profile, leadless surface mount package.

SYMBOL

| SYMBOL | | UNITS |
|---------------|-------------|--------------------|
| V_{RRM} | 40 | V |
| I_O | 200 | mA |
| I_{FSM} | 600 | 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)

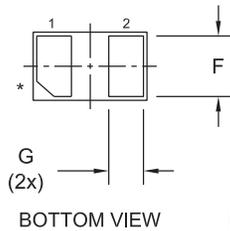
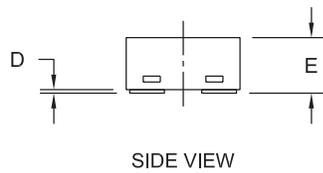
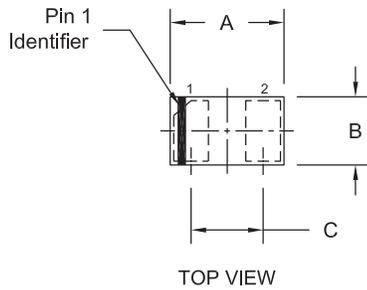
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|---|-----|------|------|-------|
| I_R | $V_R=30\text{V}$ | | 25 | 200 | nA |
| BV_R | $I_R=10\mu\text{A}$ | 40 | | | V |
| V_F | $I_F=1.0\text{mA}$ | | 0.35 | 0.38 | V |
| V_F | $I_F=15\text{mA}$ | | 0.55 | 0.65 | V |
| V_F | $I_F=40\text{mA}$ | | 0.77 | 1.00 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | | | 5.0 | pF |
| t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | | 5.0 | ns |

R5 (3-August 2015)

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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: L

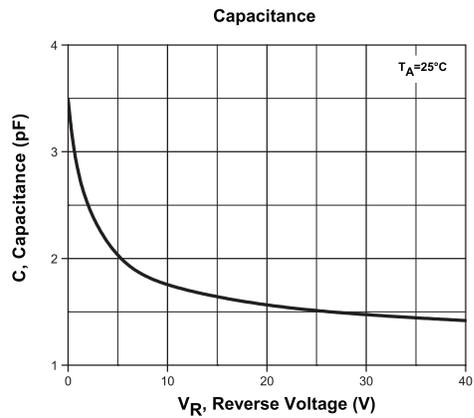
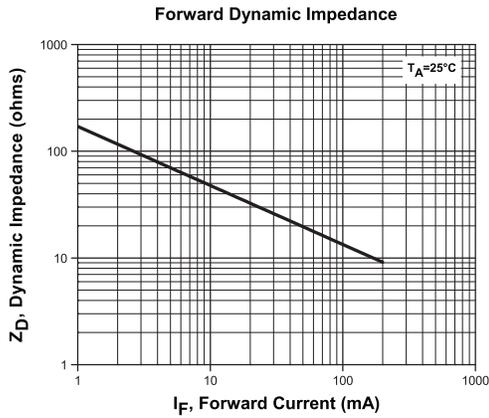
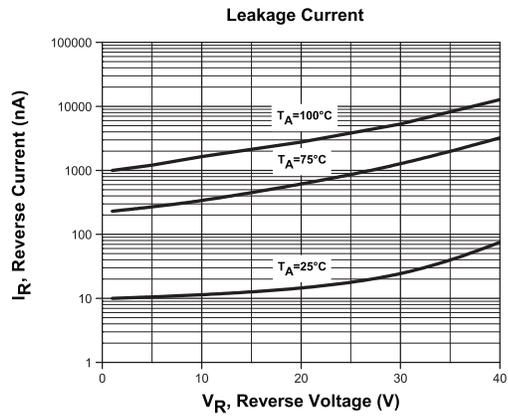
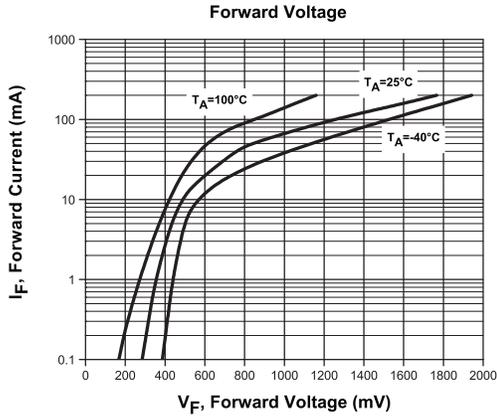
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R5 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

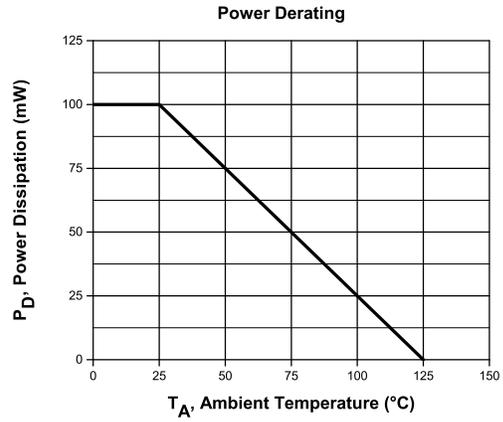
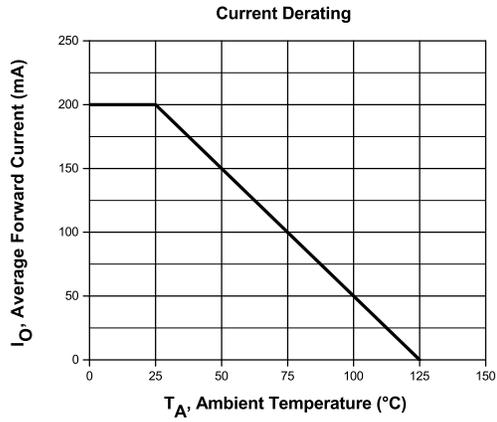


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TYPICAL ELECTRICAL CHARACTERISTICS



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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

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

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- 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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