

CLL914

**SURFACE MOUNT
HIGH SPEED SILICON
SWITCHING DIODE**



SOD-80 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CLL914 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in a hermetically sealed glass surface mount package, designed for high speed switching applications.

MARKING: CATHODE BAND

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

| |
|--------------------------------------------------|
| Continuous Reverse Voltage |
| 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 | | UNITS |
|----------------|-------------|--------------------|
| V_R | 75 | V |
| V_{RRM} | 100 | V |
| I_F | 250 | mA |
| I_{FRM} | 250 | mA |
| I_{FSM} | 4.0 | A |
| I_{FSM} | 1.0 | A |
| P_D | 500 | mW |
| T_J, T_{stg} | -65 to +200 | $^\circ\text{C}$ |
| θ_{JA} | 350 | $^\circ\text{C/W}$ |

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

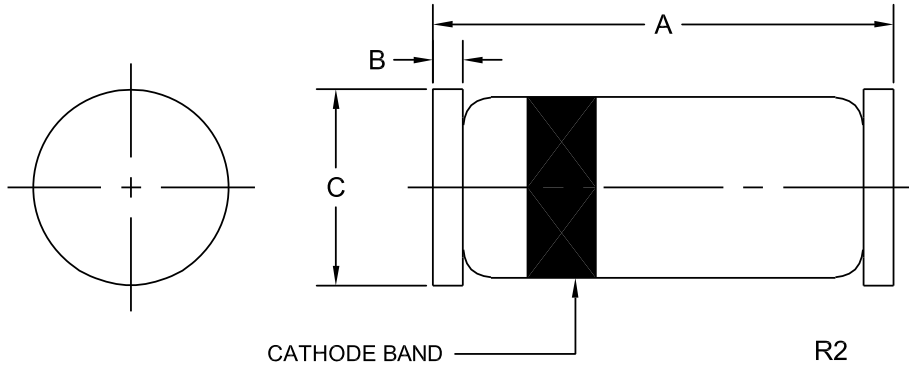
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|--------------------------------------------------------------------|-----|-----|---------------|
| I_R | $V_R=20\text{V}$ | | 25 | nA |
| I_R | $V_R=75\text{V}$ | | 5.0 | μA |
| BV_R | $I_R=100\mu\text{A}$ | 100 | | V |
| V_F | $I_F=10\text{mA}$ | | 1.0 | V |
| C_T | $V_R=0, f=1\text{ MHz}$ | | 4.0 | pF |
| t_{rr} | $I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$ | | 4.0 | ns |

R3 (8-January 2010)

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SOD-80 CASE - MECHANICAL OUTLINE



MARKING: CATHODE BAND

| DIMENSIONS | | | | |
|-------------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.130 | 0.146 | 3.30 | 3.71 |
| B | 0.014 | | 0.35 | |
| C (DIA) | 0.049 | 0.067 | 1.25 | 1.70 |

SOD-80 (REV:R2)

R3 (8-January 2010)

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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