

CLL3595
SURFACE MOUNT
LOW LEAKAGE SILICON DIODE



CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CLL3595 type is an epitaxial planar silicon diode, manufactured in a hermetically sealed glass surface mount package, designed for low leakage, high conductance applications.

MARKING CODE: CATHODE BAND

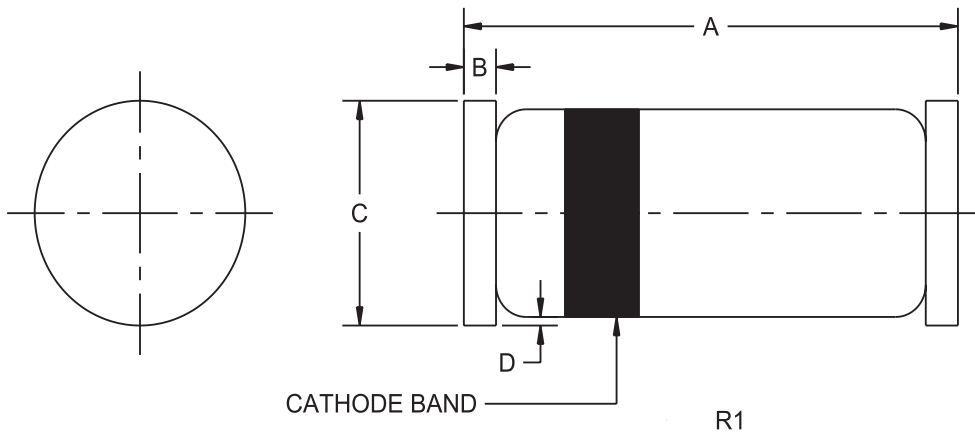
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

| | SYMBOL | | UNITS |
|--|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 150 | V |
| Peak Working Reverse Voltage | V_{RWM} | 125 | V |
| Average Forward Current | I_O | 150 | mA |
| Forward Steady-State Current | I_F | 225 | mA |
| Recurrent Peak Forward Current | i_f | 600 | mA |
| Peak Forward Surge Current (1.0s pulse) | I_{FSM} | 500 | mA |
| Peak Forward Surge Current (1.0 μ s pulse) | I_{FSM} | 4.0 | A |
| Power Dissipation | P_D | 500 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +200 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JA} | 350 | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|---|------------|------------|---------------|
| BV_R | $I_R=100\mu\text{A}$ | 150 | | V |
| I_R | $V_R=125\text{V}$ | | 1.0 | nA |
| I_R | $V_R=125\text{V}, T_A=125^\circ\text{C}$ | | 500 | nA |
| I_R | $V_R=125\text{V}, T_A=150^\circ\text{C}$ | | 3.0 | μA |
| I_R | $V_R=30\text{V}, T_A=125^\circ\text{C}$ | | 300 | nA |
| V_F | $I_F=1.0\text{mA}$ | 0.54 | 0.69 | V |
| V_F | $I_F=5.0\text{mA}$ | 0.62 | 0.77 | V |
| V_F | $I_F=10\text{mA}$ | 0.65 | 0.80 | V |
| V_F | $I_F=50\text{mA}$ | 0.75 | 0.88 | V |
| V_F | $I_F=100\text{mA}$ | 0.79 | 0.92 | V |
| V_F | $I_F=200\text{mA}$ | 0.83 | 1.00 | V |
| C_T | $V_R=0, f=1.0\text{MHz}$ | | 8.0 | pF |
| t_{rr} | $V_R=3.5\text{V}, I_F=10\text{mA}, R_L=1.0\text{k}\Omega$ | | 3.0 | μs |

SOD-80 CASE - MECHANICAL OUTLINE



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| SYMBOL | DIMENSIONS | | | |
|---------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.130 | 0.146 | 3.30 | 3.71 |
| B | 0.016 | | 0.41 | |
| C (DIA) | 0.051 | 0.067 | 1.30 | 1.70 |
| D | - | 0.004 | - | 0.10 |

SOD-80 (REV:R1)