

CMLD2838
SURFACE MOUNT
PICOmini™
DUAL PAIR,
SILICON SWITCHING DIODES

PICOmini™



SOT-563 CASE

Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD2838 type is a dual pair of common cathode silicon switching diodes manufactured by the epitaxial planar process and packaged in an epoxy molded PICOmini™ surface mount case. This device is ideal for high speed switching applications.

MARKING CODE: CSQ

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

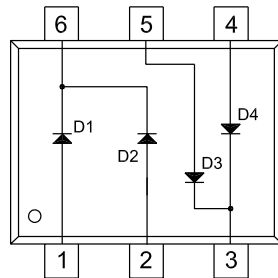
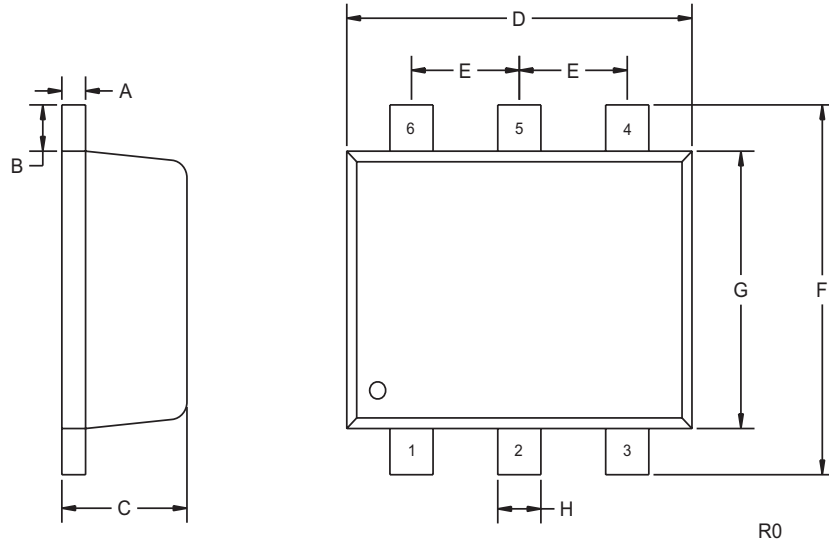
| | SYMBOL | | UNITS |
|-----------------------------------------------|----------------|-------------|--------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 75 | V |
| Average Forward Current | I_O | 200 | mA |
| Peak Forward Current | I_{FM} | 300 | mA |
| Power Dissipation | P_D | 250 | mW |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | °C |
| Thermal Resistance | θ_{JA} | 500 | °C/W |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|--------------------------------------------------------------------|------------|------------|--------------|
| I_R | $V_R=50\text{V}$ | | 100 | nA |
| BV_R | $I_R=100\mu\text{A}$ | 75 | | V |
| V_F | $I_F=10\text{mA}$ | | 1.0 | V |
| V_F | $I_F=50\text{mA}$ | | 1.0 | V |
| V_F | $I_F=100\text{mA}$ | | 1.2 | 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 |

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SOT-563 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.10 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.022 | 0.024 | 0.56 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.061 | 0.067 | 1.55 | 1.70 |
| G | 0.047 | | 1.20 | |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R0)

CMLD2838

Lead Code:

- 1) Anode D1
- 2) Anode D2
- 3) Cathode D3, D4
- 4) Anode D4
- 5) Anode D3
- 6) Cathode D1, D2

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R0 (22-March 2005)