

CMLD6001DO

**SURFACE MOUNT SILICON
DUAL, ISOLATED, OPPOSING
ULTRA LOW LEAKAGE
SWITCHING DIODE**

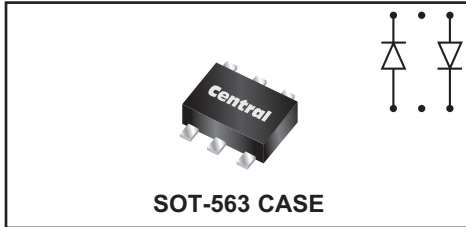


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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD6001DO type contains two (2) isolated opposing configuration, silicon switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 surface mount package. These devices are designed for switching applications requiring extremely low leakage.

MARKING CODE: C60



SOT-563 CASE

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

| |
|--|
| Continuous Reverse Voltage |
| Peak Repetitive Reverse Voltage |
| Continuous 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_{FSM} | 4.0 | A |
| I_{FSM} | 1.0 | A |
| P_D | 250 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| θ_{JA} | 500 | $^\circ\text{C/W}$ |

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

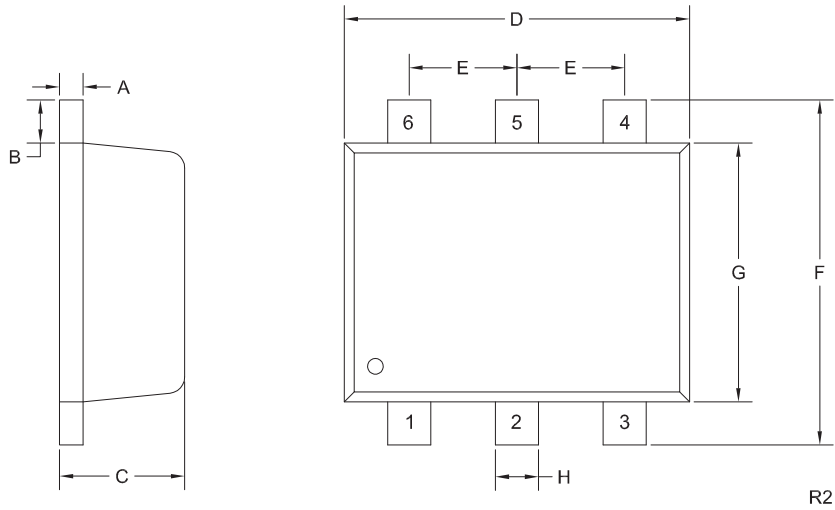
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|---|-----|------|---------------|
| I_R | $V_R=75\text{V}$ | | 500 | pA |
| BV_R | $I_R=100\mu\text{A}$ | 100 | | V |
| V_F | $I_F=1.0\text{mA}$ | | 0.85 | V |
| V_F | $I_F=10\text{mA}$ | | 0.95 | V |
| V_F | $I_F=100\text{mA}$ | | 1.1 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | | 2.0 | pF |
| t_{rr} | $I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ | | 3.0 | μs |

R5 (15-June 2015)

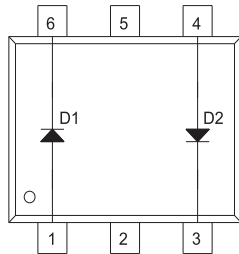
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SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.0027 | 0.007 | 0.07 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.017 | 0.024 | 0.45 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.059 | 0.067 | 1.50 | 1.70 |
| G | 0.043 | 0.051 | 1.10 | 1.30 |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R2)

LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

MARKING CODE: C60

R5 (15-June 2015)

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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