

CMXD3003TO

**SURFACE MOUNT
TRIPLE ISOLATED OPPOSING
LOW LEAKAGE
SILICON SWITCHING DIODES**



www.centrasemi.com

SUPERmini™



SOT-26 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMXD3003TO consists of three (3) Isolated Low Leakage Silicon Switching Diodes arranged in an alternating configuration in a SUPERmini SOT-26 surface mount package, and is designed for low leakage switching applications. This device can be configured as a 540V switching diode. See optional mounting pad configuration.

MARKING CODE: C03TO

APPLICATIONS:

- Voltage Multiplier
- Steering Diode Array
- General Purpose Switching

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

| |
|--|
| Continuous Reverse Voltage |
| Average Forward Current |
| 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 | 180 | V |
| I_O | 200 | mA |
| I_F | 600 | mA |
| I_{FRM} | 700 | mA |
| I_{FSM} | 2.0 | A |
| I_{FSM} | 1.0 | A |
| P_D | 350 | mW |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| θ_{JA} | 357 | $^\circ\text{C/W}$ |

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

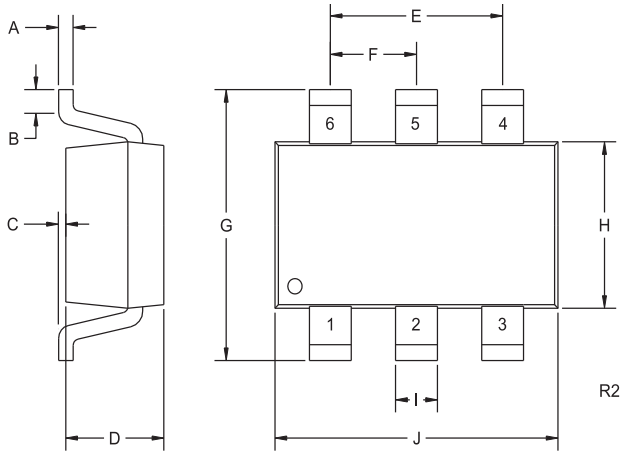
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|--------|--|------|------|---------------|
| I_R | $V_R=125\text{V}$ | | 1.0 | nA |
| I_R | $V_R=125\text{V}, T_A=150^\circ\text{C}$ | | 3.0 | μA |
| I_R | $V_R=180\text{V}$ | | 10 | nA |
| I_R | $V_R=180\text{V}, T_A=150^\circ\text{C}$ | | 5.0 | μA |
| BV_R | $I_R=5.0\mu\text{A}$ | 200 | | V |
| V_F | $I_F=1.0\text{mA}$ | 0.62 | 0.72 | V |
| V_F | $I_F=10\text{mA}$ | 0.72 | 0.83 | V |
| V_F | $I_F=50\text{mA}$ | 0.80 | 0.89 | V |
| V_F | $I_F=100\text{mA}$ | 0.83 | 0.93 | V |
| V_F | $I_F=200\text{mA}$ | 0.87 | 1.10 | V |
| V_F | $I_F=300\text{mA}$ | 0.90 | 1.15 | V |
| C_T | $V_R=0, f=1.0\text{MHz}$ | | 4.0 | pF |

R1 (26-July 2011)

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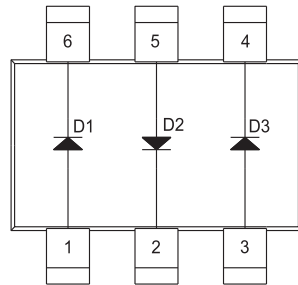
SOT 26 CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.11 | 0.19 |
| B | 0.016 | - | 0.40 | - |
| C | - | 0.004 | - | 0.10 |
| D | 0.039 | 0.047 | 1.00 | 1.20 |
| E | 0.074 | 0.075 | 1.88 | 1.92 |
| F | 0.037 | 0.038 | 0.93 | 0.97 |
| G | 0.102 | 0.118 | 2.60 | 3.00 |
| H | 0.059 | 0.067 | 1.50 | 1.70 |
| I | 0.016 | | 0.41 | |
| J | 0.110 | 0.118 | 2.80 | 3.00 |

SOT-26 (REV: R2)

PIN CONFIGURATION

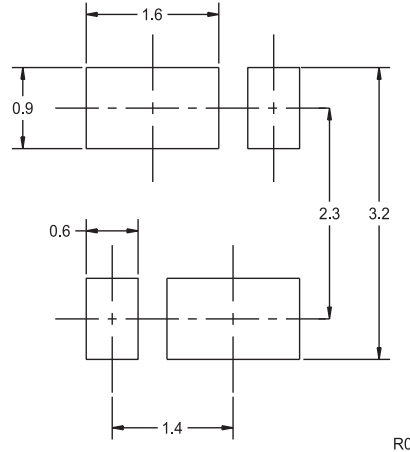


LEAD CODE:

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

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OPTIONAL MOUNTING PADS
For 540V Series Configuration
(Dimensions in mm)



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