**CMXD3003TO**

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

SUPERmini™






**SOT-26 CASE**

Central Semiconductor Corp.

www.centralsemi.com

**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°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Continuous Reverse Voltage | $V_R$ | 180 | V |
| Average Forward Current | $I_O$ | 200 | mA |
| Continuous Forward Current | $I_F$ | 600 | mA |
| Peak Repetitive Forward Current | $I_{FRM}$ | 700 | mA |
| Peak Forward Surge Current, tp=1.0μs | $I_{FSM}$ | 2.0 | A |
| Peak Forward Surge Current, tp=1.0s | $I_{FSM}$ | 1.0 | A |
| Power Dissipation | $P_D$ | 350 | mW |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +150 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 357 | °C/W |

**ELECTRICAL CHARACTERISTICS PER DIODE:** ($T_A$=25°C unless otherwise noted)

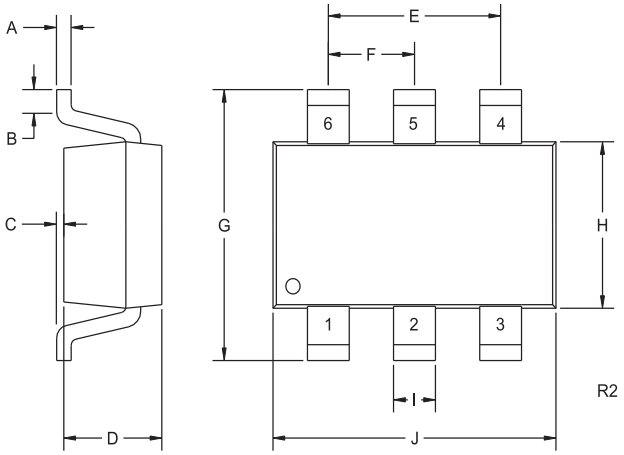
| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **MAX** | **UNITS** |
|---|---|---|---|---|
| $I_R$ | $V_R$=125V | | 1.0 | nA |
| $I_R$ | $V_R$=125V, $T_A$=150°C | | 3.0 | μA |
| $I_R$ | $V_R$=180V | | 10 | nA |
| $I_R$ | $V_R$=180V, $T_A$=150°C | | 5.0 | μA |
| $BV_R$ | $I_R$=5.0μA | 200 | | V |
| $V_F$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

R1 (26-July 2011)

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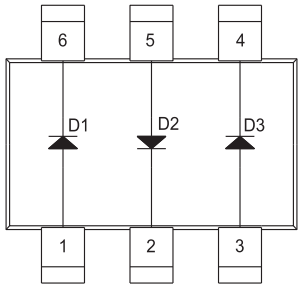
## SOT 26 CASE - MECHANICAL OUTLINE




| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | 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)

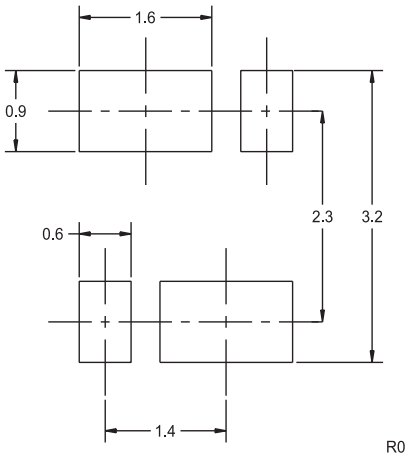
### PIN CONFIGURATION




**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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