

CMXD2004S
CMXD2004SR

**SURFACE MOUNT
DUAL PAIR, IN-SERIES
HIGH VOLTAGE
SILICON SWITCHING DIODES**

SUPERmini™



SOT-26 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMXD2004S and CMXD2004SR consists of Dual Pair, In-Series pairs of High Voltage Silicon Switching Diodes, manufactured in a SUPERmini™ SOT-26 surface mount package, and designed for high voltage switching applications. This device can be configured as a 1200V switching diode, or as a bridge rectifier. See optional mounting pad configurations on following page.

**MARKING CODES: CMXD2004S: CX04S
CMXD2004SR: C04SR**

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

Continuous Reverse Voltage
Peak Repetitive 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

V_R
 V_{RRM}
 I_O
 I_F
 I_{FRM}
 I_{FSM}
 I_{FSM}
 P_D
 T_J, T_{stg}
 θ_{JA}

240
300
200
225
625
4.0
1.0
350
-65 to +150
357

UNITS

V
V
mA
mA
mA
A
A
mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNIT |
|----------|---|-----|-----|---------------|
| I_R | $V_R=240\text{V}$ | | 100 | nA |
| I_R | $V_R=240\text{V}, T_A=150^\circ\text{C}$ | | 100 | μA |
| BV_R | $I_R=100\mu\text{A}$ | 300 | | V |
| V_F | $I_F=100\text{mA}$ | | 1.0 | V |
| C_T | $V_R=0, f=1.0\text{MHz}$ | | 5.0 | pF |
| t_{rr} | $I_F=I_R=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$ | | 50 | ns |

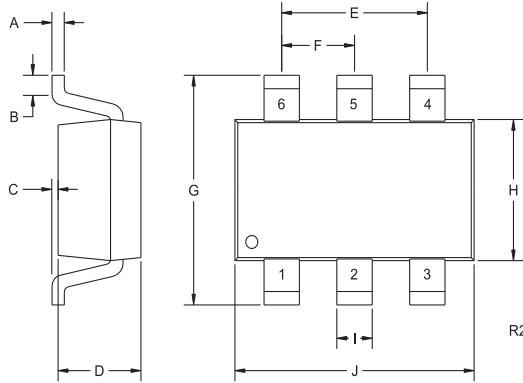
R3 (12-February 2010)

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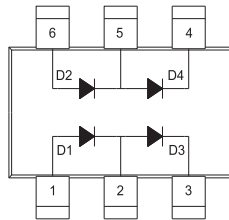
SOT-26 CASE - MECHANICAL OUTLINE



| 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)

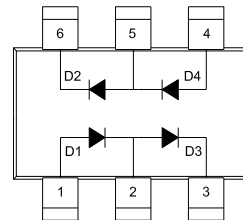
PIN CONFIGURATION



- LEAD CODE:**
- 1) Anode D1
 - 2) Cathode D1, Anode D3
 - 3) Cathode D3
 - 4) Cathode D4
 - 5) Anode D4, Cathode D2
 - 6) Anode D2

CMXD2004S
MARKING CODE: CX04S

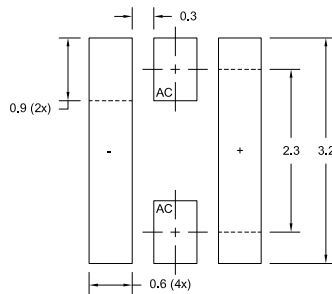
PIN CONFIGURATION



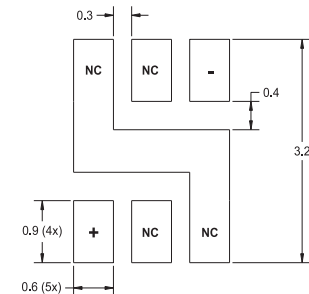
- LEAD CODE:**
- 1) Anode D1
 - 2) Cathode D1, Anode D3
 - 3) Cathode D3
 - 4) Anode D4
 - 5) Cathode D4, Anode D2
 - 6) Cathode D2

CMXD2004SR
MARKING CODE: CX04SR

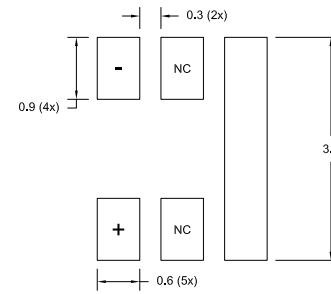
OPTIONAL MOUNTING PADS (Dimensions in mm)



For Bridge Configuration
CMXD2004S



For 1200V Series Configuration
CMXD2004S



For 1200V Series Configuration
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