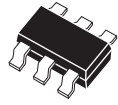


CMXD2004S  
CMXD2004SR

**SURFACE MOUNT SUPERmini™  
DUAL, IN-SERIES  
HIGH VOLTAGE  
SWITCHING DIODES**

**SUPERmini™**



**SOT-26 CASE**

**Central™**  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXD2004S and CMXD2004SR consists of Dual, 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** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	240	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Peak Repetitive Reverse Current	$I_O$	200	mA
Continuous Forward Current	$I_F$	225	mA
Peak Repetitive Forward Current	$I_{FRM}$	625	mA
Forward Surge Current, $t_p=1 \mu\text{s}$	$I_{FSM}$	4.0	A
Forward Surge Current, $t_p=1 \text{ s}$	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNIT</b>
$I_R$	$V_R=240\text{V}$		100	nA
$I_R$	$V_R=240\text{V}, T_A=150^\circ\text{C}$		100	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	300		V
$V_F$	$I_F=100\text{mA}$		1.0	V
$C_T$	$V_R=0, f=1 \text{ MHz}$		5.0	pF
$t_{rr}$	$I_F=I_R=30\text{mA}, \text{Rec. To } 3.0\text{mA}, R_L=100\Omega$		50	ns

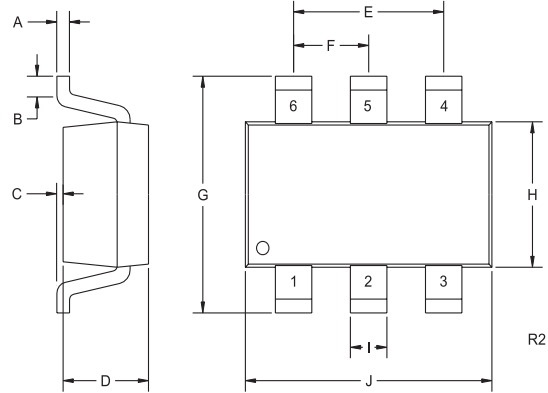
R2 (25-August 2005)

**SURFACE MOUNT SUPERmini<sup>TM</sup>  
DUAL, IN-SERIES  
HIGH VOLTAGE  
SWITCHING DIODES**

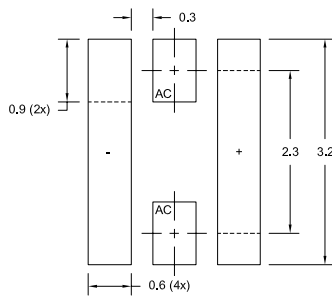
**SOT-26 CASE - MECHANICAL OUTLINE**

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

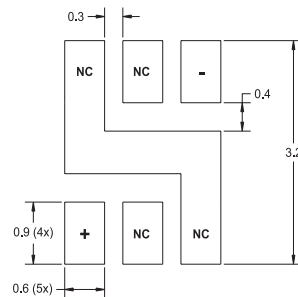
SOT-26 (REV: R2)



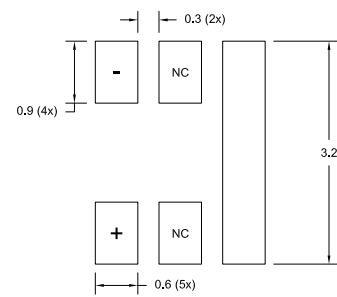
**OPTIONAL MOUNTING PAD LAYOUTS (Dimensions in mm)**



**For Bridge Configuration  
CMXD2004S**

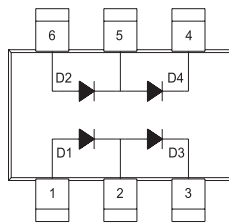


**For 1200V Series Configuration  
CMXD2004S**



**For 1200V Series Configuration  
CMXD2004SR**

**PIN CONFIGURATION**

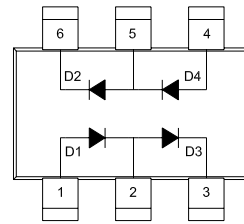


**MARKING CODE:**  
CMXD2004S: CX04S

**LEAD CODE**

- 1) ANODE D1
- 2) CATHODE D1,  
ANODE D3
- 3) CATHODE D3
- 4) CATHODE D4
- 5) ANODE D4,  
CATHODE D2
- 6) ANODE D2

**PIN CONFIGURATION**



**MARKING CODE:**  
CMXD2004SR: C04SR

**LEAD CODE**

- 1) ANODE D1
- 2) CATHODE D1,  
ANODE D3
- 3) CATHODE D3
- 4) ANODE D4
- 5) CATHODE D4,  
ANODE D2
- 6) CATHODE D2

R2 (25-August 2005)