

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, 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 240
 V_{RRM} 300
 I_O 200
 I_F 225
 I_{FRM} 625
 I_{FSM} 4.0
 I_{FSM} 1.0
 P_D 350
 T_J, T_{stg} -65 to +150
 Θ_{JA} 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_J	$V_R=0, f=1.0\text{MHz}$		5.0	pF
t_{rr}	$I_F=I_R=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		50	ns

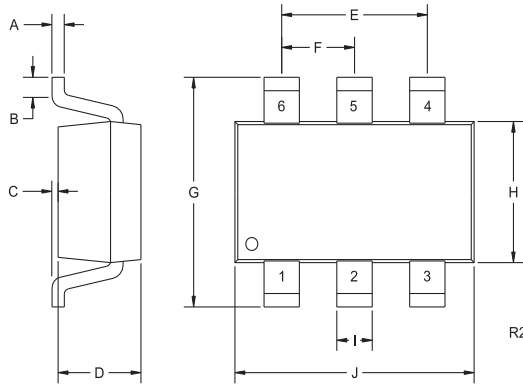
R4 (25-May 2012)

CMXD2004S
CMXD2004SR

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HIGH VOLTAGE
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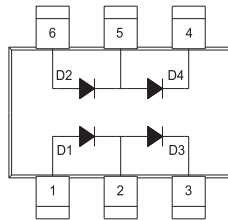
SOT-26 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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



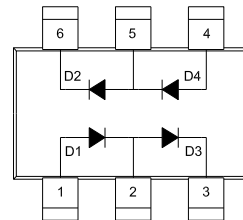
CMXD2004S

MARKING CODE: 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



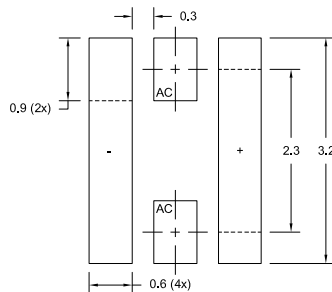
CMXD2004SR

MARKING CODE: C04SR

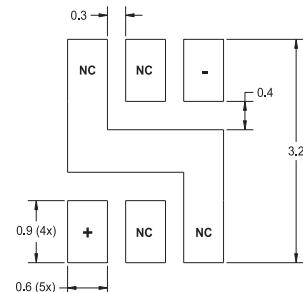
LEAD CODE:

- 1) Anode D1
- 2) Cathode D1, Anode D3
- 3) Cathode D3
- 4) Anode D4
- 5) Cathode D4, Anode D2
- 6) Cathode D2

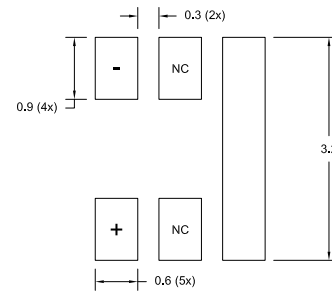
OPTIONAL MOUNTING PADS (Dimensions in mm)



For Bridge Configuration
CMXD2004S



For 1200V Series Configuration
CMXD2004S



For 1200V Series Configuration
CMXD2004SR

R4 (25-May 2012)

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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