## CMXD2004TO

# SURFACE MOUNT TRIPLE ISOLATED OPPOSING HIGH VOLTAGE SILICON SWITCHING DIODES





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## **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMXD2004TO consists of three (3) Isolated High Voltage Silicon Switching Diodes arranged in an alternating configuration in a SUPERmini SOT-26 surface mount package, and designed for high voltage switching applications. This device can be configured as a 900V switching diode. See optional mounting pad configuration.

**MARKING CODE: X04TO** 

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	$V_{R}$	240	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Average Forward Current	IO	200	mA
Continuous Forward Current	IF	225	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	625	mA
Peak Forward Surge Current, tp=1.0µs	I <sub>FSM</sub>	4.0	Α
Peak Forward Surge Current, tp=1.0s	I <sub>FSM</sub>	1.0	Α
Power Dissipation	$P_{D}$	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	ΘιΔ	357	°C/W

# **ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

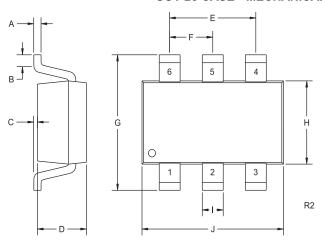
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =240V		100	nA
$I_{R}$	V <sub>R</sub> =240V, T <sub>A</sub> =150°C		100	μΑ
$BV_R$	I <sub>R</sub> =100μA	300		V
$V_{F}$	I <sub>F</sub> =100mA		1.0	V
$C_{T}$	V <sub>R</sub> =0, f=1.0MHz		5.0	pF
t <sub>rr</sub>	$I_F = I_R = 30 \text{mA}, I_{rr} = 3.0 \text{mA}, R_I = 100 \Omega$		50	ns

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# **SURFACE MOUNT** TRIPLE ISOLATED OPPOSING **HIGH VOLTAGE SILICON SWITCHING DIODES**



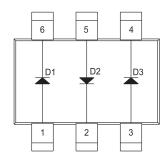
### **SOT 26 CASE - MECHANICAL OUTLINE**



DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.004	0.007	0.11	0.19			
В	0.016	-	0.40	-			
С	-	0.004	-	0.10			
D	0.039	0.047	1.00	1.20			
Е	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			
Н	0.059	0.067	1.50	1.70			
Ī	0.016		0.41				
J	0.110	0.118	2.80	3.00			

SOT-26 (REV: R2)

# PIN CONFIGURATION



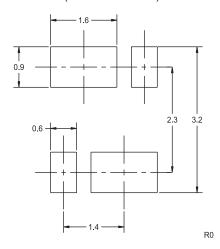
# LEAD CODE:

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

MARKING CODE: X04TO

# **OPTIONAL MOUNTING PADS** For 900V Series Configuration

(Dimensions in mm)



R2 (12-February 2010)

#### **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 guick ship samples (2<sup>nd</sup> 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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