# **CMKD7000**

SURFACE MOUNT DUAL PAIR, IN-SERIES ULTRA-HIGH SPEED SILICON SWITCHING DIODES





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# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMKD7000 consists of two pair of electrically isolated, series configured ultra-high speed switching diodes in an ULTRAmini™ SOT-363 surface mount package, designed for ESD protection and high speed switching applications.

**MARKING CODE: K00** 

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Forward Current	IO	200	mA
Peak Forward Current	I <sub>FM</sub>	500	mA
Power Dissipation	$P_{D}$	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	500	°C/W

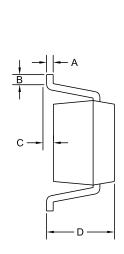
ELECTRIC	AL CHARACTERISTICS PER DIODE: (T	ձ=25°C unl	ess otherwise r	noted)	
SYMBOL	TEST CONDITIONS	` MIN	TYP	MAX	UNITS
$I_{R}$	V <sub>R</sub> =50V			300	nA
$I_{R}$	V <sub>R</sub> =50V, T <sub>A</sub> =125°C			100	μΑ
$I_{R}$	V <sub>R</sub> =100V			500	nA
$BV_R$	I <sub>R</sub> =100μA	100			V
$V_{F}$	I <sub>F</sub> =1.0mA	0.55		0.70	V
$V_{F}$	I <sub>F</sub> =10mA	0.67		0.82	V
$V_{F}$	I <sub>F</sub> =100mA	0.75		1.10	V
$C_T$	V <sub>R</sub> =0, f=1.0MHz		1.5	2.6	pF
trr	$I_{R}=I_{F}=10$ mA, $R_{I}=100\Omega$ , Rec. to 1.0mA		2.0	4.0	ns

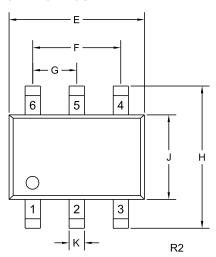
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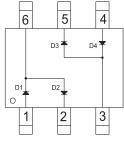


# **SOT-363 CASE - MECHANICAL OUTLINE**





# PIN CONFIGURATION



# LEAD CODE:

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

**MARKING CODE: K00** 

DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.004	0.010	0.10	0.25			
В	0.005	-	0.12	-			
С	0.000	0.004	0.00	0.10			
D	0.031	0.043	0.80	1.10			
Е	0.071	0.087	1.80	2.20			
F	0.051		1.30				
G	0.026		0.65				
Н	0.075	0.091	1.90	2.30			
J	0.043	0.055	1.10	1.40			
K	0.006	0.012	0.15	0.30			

SOT-363 (REV: R2)

R4 (13-January 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 quick 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

#### **CONTACT US**

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