

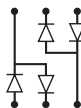
CMKD7000

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



www.centrasemi.com

ULTRAm<sup>ini</sup><sup>™</sup>



SOT-363 CASE

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMKD7000 consists of two pair of electrically isolated, series configured ultra-high speed switching diodes in an ULTRAm<sup>ini</sup><sup>™</sup> 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)

Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
Average Forward Current	I <sub>O</sub>	200	mA
Peak Forward Current	I <sub>FM</sub>	500	mA
Power Dissipation	P <sub>D</sub>	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	500	°C/W

**SYMBOL**

**UNITS**

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

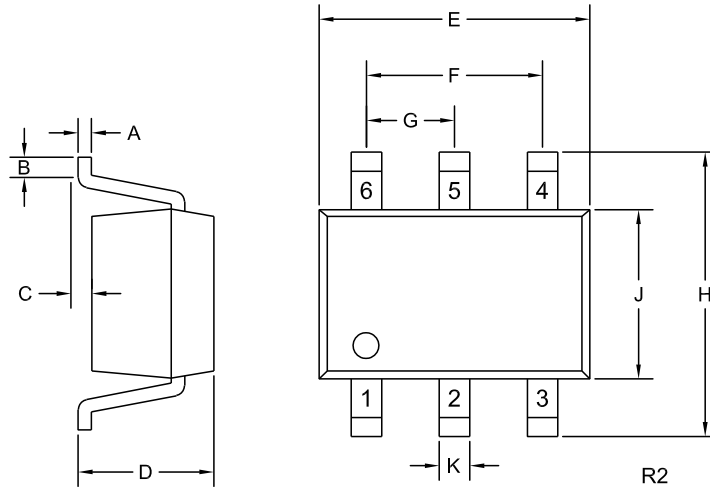
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =50V			300	nA
I <sub>R</sub>	V <sub>R</sub> =50V, T <sub>A</sub> =125°C			100	μA
I <sub>R</sub>	V <sub>R</sub> =100V			500	nA
BV <sub>R</sub>	I <sub>R</sub> =100μA	100			V
V <sub>F</sub>	I <sub>F</sub> =1.0mA	0.55		0.70	V
V <sub>F</sub>	I <sub>F</sub> =10mA	0.67		0.82	V
V <sub>F</sub>	I <sub>F</sub> =100mA	0.75		1.10	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		1.5	2.6	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =10mA, R <sub>L</sub> =100Ω, Rec. to 1.0mA		2.0	4.0	ns

CMKD7000

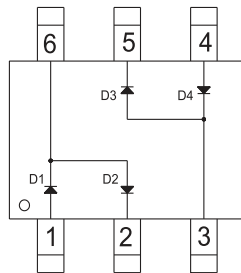
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SWITCHING DIODES



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

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.010	0.10	0.25
B	0.005	-	0.12	-
C	0.000	0.004	0.00	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	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



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### 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

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### 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

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### 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).

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### CONTACT US

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