

CMKD7000

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



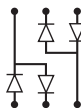
www.centrasemi.com

**DESCRIPTION:**

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

**MARKING CODE: K00**

ULTRAmimi™



**SOT-363 CASE**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Peak Repetitive Reverse Voltage
Average Forward Current
Peak Forward Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

**SYMBOL**

$V_{RRM}$	100
$I_O$	200
$I_{FM}$	500
$P_D$	250
$T_J, T_{stg}$	-65 to +150
$\theta_{JA}$	500

**UNITS**

V
mA
mA
mW
$^\circ\text{C}$
$^\circ\text{C/W}$

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

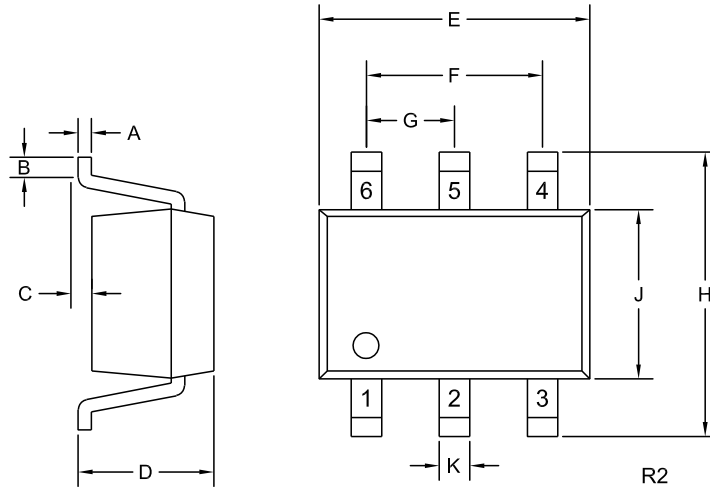
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=50\text{V}$			300	nA
$I_R$	$V_R=50\text{V}, T_A=125^\circ\text{C}$			100	$\mu\text{A}$
$I_R$	$V_R=100\text{V}$			500	nA
$BV_R$	$I_R=100\mu\text{A}$	100			V
$V_F$	$I_F=1.0\text{mA}$	0.55		0.70	V
$V_F$	$I_F=10\text{mA}$	0.67		0.82	V
$V_F$	$I_F=100\text{mA}$	0.75		1.10	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		1.5	2.6	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$		2.0	4.0	ns

CMKD7000

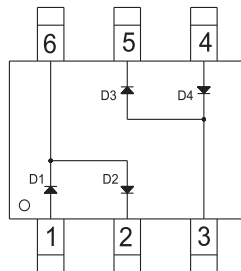
SURFACE MOUNT  
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SWITCHING DIODES



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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