

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 ULTRAmulti™ SOT-363 surface mount package, designed for ESD protection and high speed switching applications.

MARKING CODE: K00

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
 θ_{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)

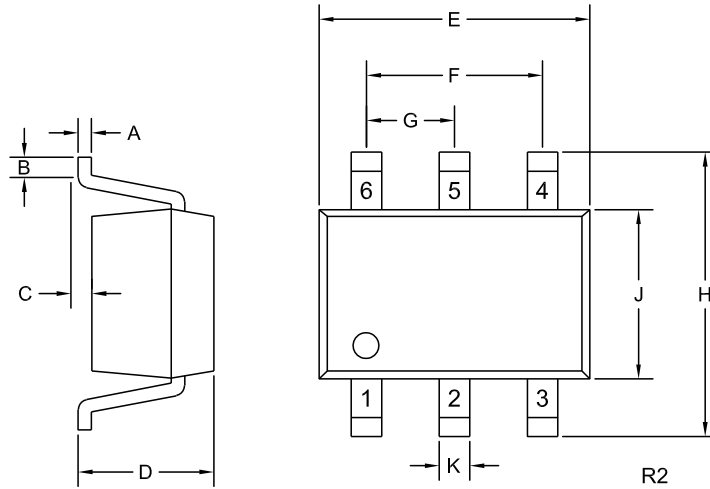
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=50\text{V}$			300	nA
I_R	$V_R=50\text{V}, T_A=125^\circ\text{C}$			100	μA
I_R	$V_R=100\text{V}$			500	nA
BV_R	$I_R=100\mu\text{A}$	100			V
V_F	$I_F=1.0\text{mA}$	0.55		0.70	V
V_F	$I_F=10\text{mA}$	0.67		0.82	V
V_F	$I_F=100\text{mA}$	0.75		1.10	V
C_T	$V_R=0, f=1.0\text{MHz}$		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

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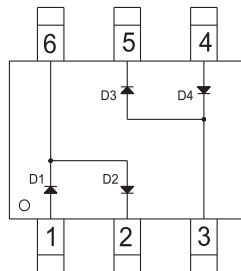
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SOT-363 CASE - MECHANICAL OUTLINE



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

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)