

**CMKD7000E**  
**SURFACE MOUNT**  
**DUAL PAIR OF**  
**SERIES CONFIGURED**  
**ULTRA-HIGH SPEED SILICON**  
**SWITCHING DIODES**



[www.centrasemi.com](http://www.centrasemi.com)



**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMKD7000E is an enhanced version of the CMKD7000. It 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: K0E**

**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		UNITS
$V_{RRM}$	120	V
$I_O$	200	mA
$I_{FM}$	500	mA
$P_D$	250	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	500	$^\circ\text{C/W}$

**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
◆ $BV_R$	$I_R=100\mu\text{A}$	120	150		V
◆ $V_F$	$I_F=1.0\text{mA}$	0.55	0.59	0.65	V
◆ $V_F$	$I_F=10\text{mA}$	0.67	0.72	0.77	V
◆ $V_F$	$I_F=100\text{mA}$	0.85	0.91	1.0	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

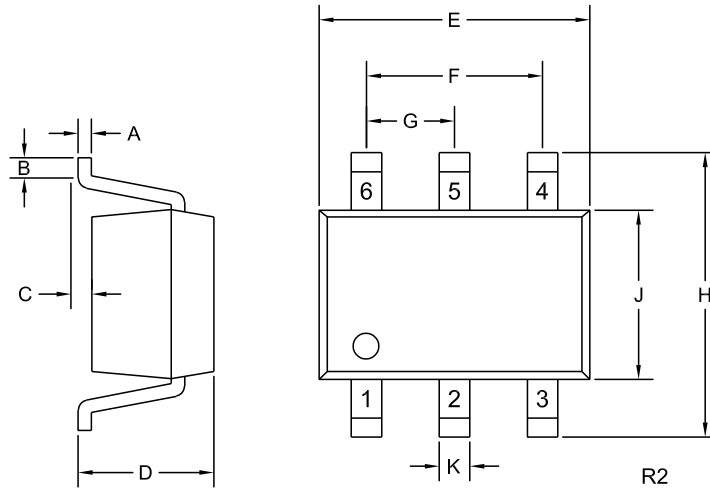
◆ Enhanced specification.

CMKD7000E

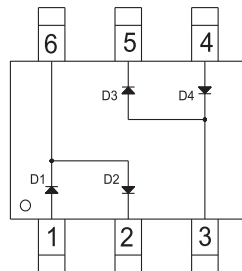
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SOT-363 CASE - MECHANICAL OUTLINE



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: K0E

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)

R0 (2-December 2009)