

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



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	$^\circ\text{C}$
θ_{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	μA
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

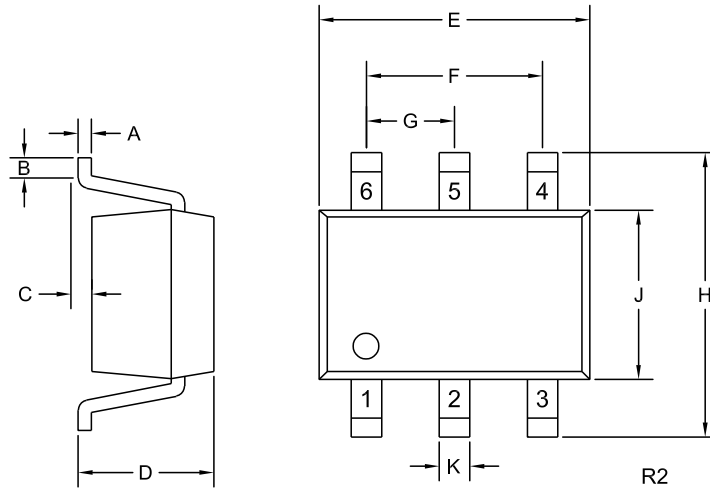
◆ Enhanced specification.

CMKD7000E

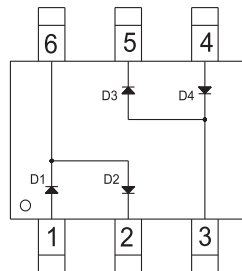
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SOT-363 CASE - MECHANICAL OUTLINE



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)