

CMPD7000E

**ENHANCED SPECIFICATION
SURFACE MOUNT
DUAL, IN SERIES
SILICON SWITCHING DIODES**



www.centrasemi.com



SOT-23 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD7000E is an Enhanced version of the CMPD7000 Dual, Series Configuration, Ultra-High Speed Switching Diode. This device is manufactured by the epitaxial planar process, in an epoxy molded surface mount SOT-23 package, designed for high speed switching applications.

MARKING CODE: C5CE

FEATURED ENHANCED SPECIFICATIONS:

- ◆ BV_R from 100V min to 120V min.
- ◆ V_F from 1.1V max to 1.0V max.

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	350	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	357	$^\circ\text{C/W}$

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

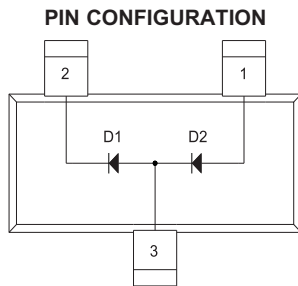
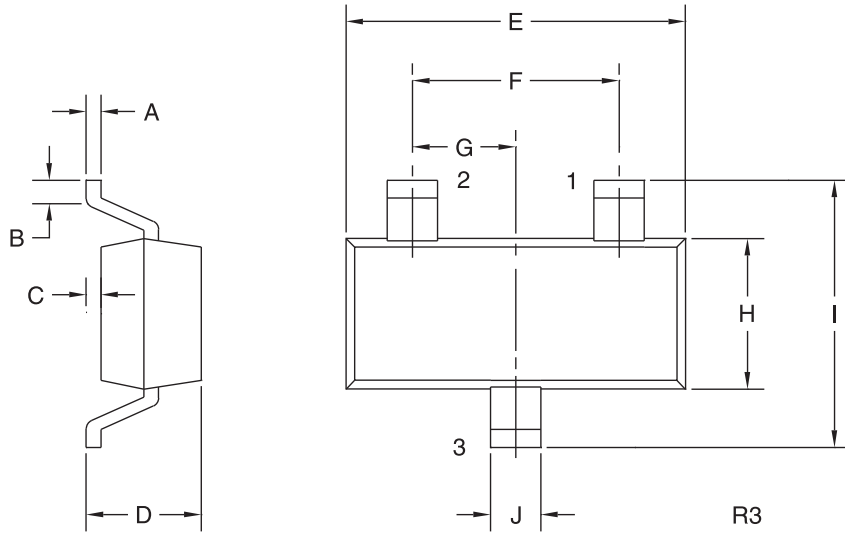
◆ Enhanced Specification

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

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SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R4 (27-January 2010)