

CMPD7000E

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



**SOT-23 CASE**



[www.centra-semi.com](http://www.centra-semi.com)

**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**

$V_{RRM}$

$I_O$

$I_{FM}$

$P_D$

$T_J, T_{stg}$

$\theta_{JA}$

**120**

200

500

350

-65 to +150

357

**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
◆ $BV_R$	$I_R=100\mu\text{A}$	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

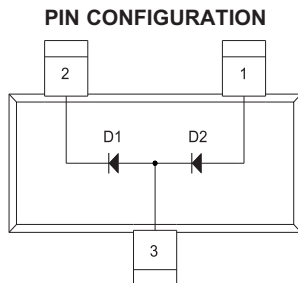
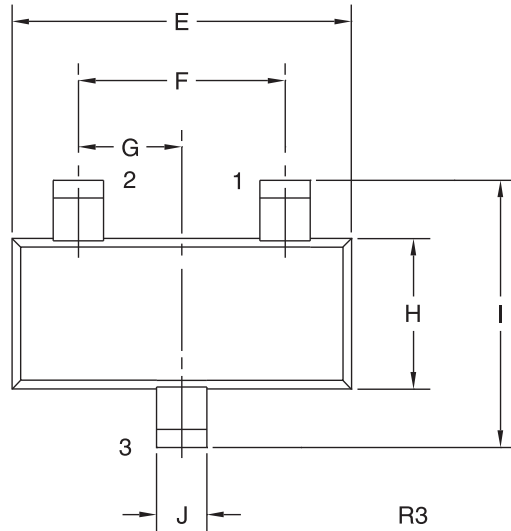
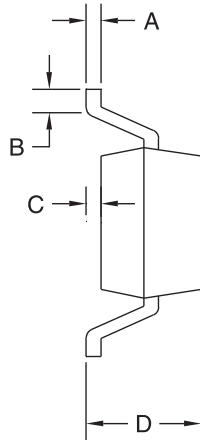
R4 (27-January 2010)

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE: C5CE**

DIMENSIONS				
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)

# Mouser Electronics

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