#### CMPD7000E

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





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#### **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<sub>R</sub> from 100V min to 120V min.
- ♦ V<sub>F</sub> from 1.1V max to 1.0V max.

MAXIMUM RATINGS: (T <sub>A</sub> =25 °C)	SYMBOL		UNITS
♦ Peak Repetitive Reverse Voltage	$V_{RRM}$	120	V
Average Forward Current	IO	200	mA
Peak Forward Current	I <sub>FM</sub>	500	mA
Power Dissipation	$P_{D}$	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stq</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	357	°C/W

#### ELECTRICAL CHARACTERISTICS PER DIODE: (TA=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{R}$	V <sub>R</sub> =50V			300	nA
$I_{R}$	V <sub>R</sub> =50V, T <sub>A</sub> =125°C			100	μΑ
$I_{R}$	V <sub>R</sub> =100V			500	nA
♦ BV <sub>R</sub>	I <sub>R</sub> =100μA	120	150		V
♦ V <sub>F</sub>	I <sub>F</sub> =1.0mA	0.55	0.59	0.65	V
♦ v <sub>F</sub>	I <sub>F</sub> =10mA	0.67	0.72	0.77	V
♦ V <sub>F</sub>	I <sub>F</sub> =100mA	0.85	0.91	1.0	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		1.5	2.6	pF
t <sub>rr</sub>	$I_R=I_F=10$ mA, $R_L=100\Omega$ , Rec. to 1.0mA		2.0	4.0	ns

<sup>◆</sup> Enhanced Specification

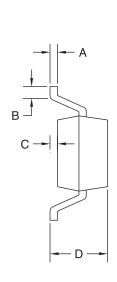
#### CMPD7000E

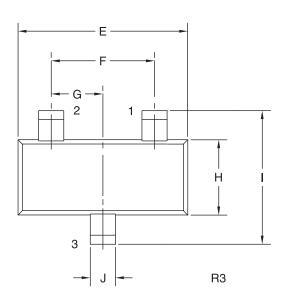
## ENHANCED SPECIFICATION SURFACE MOUNT

DUAL, IN SERIES
SILICON SWITCHING DIODES

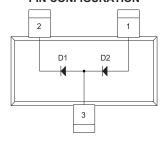


#### **SOT-23 CASE - MECHANICAL OUTLINE**





#### PIN CONFIGURATION



#### LEAD CODE:

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

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DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.003	0.007	0.08	0.18			
В	0.006	-	0.15	-			
С	-	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				
Н	0.047	0.055	1.19	1.40			
	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)

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