

CMUD7000

ULTRAmi™  
SURFACE MOUNT  
DUAL SERIES  
HIGH SPEED SWITCHING  
SILICON DIODE

ULTRAmi™



SOT-523 CASE

**Central**™  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUD7000 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded ULTRAmi™ surface mount package, connected in a series configuration, designed for high speed switching applications.

**Marking Code is CC5.**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Forward Current	$I_O$	200	mA
Peak Forward Current	$I_{FM}$	500	mA
Power Dissipation	$P_D$	250	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\Theta_{JA}$	500	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

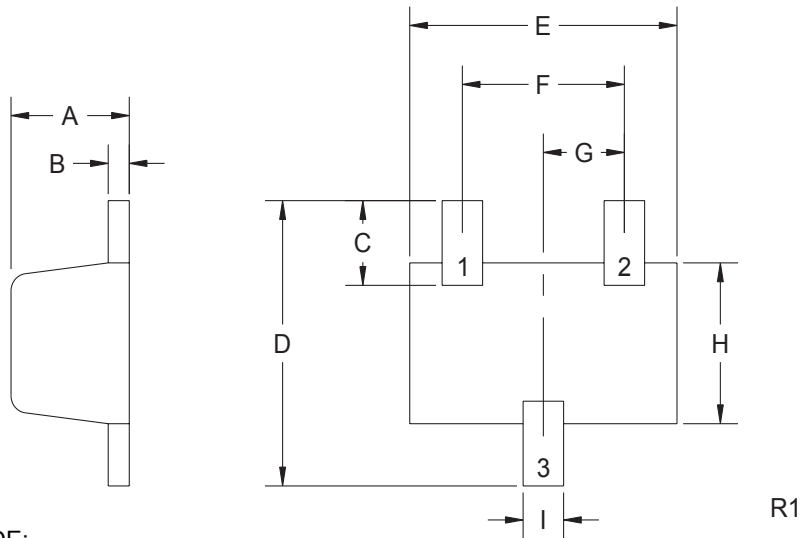
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$B_{VR}$	$I_R=100\mu\text{A}$	100			V
$I_R$	$V_R=50\text{V}$			300	nA
$I_R$	$V_R=50\text{V}, T_A=125^\circ\text{C}$			100	$\mu\text{A}$
$I_R$	$V_R=100\text{V}$			500	nA
$V_F$	$I_F=1.0\text{mA}$	0.55		0.70	V
$V_F$	$I_F=10\text{mA}$	0.67		0.82	V
$V_F$	$I_F=100\text{mA}$	0.75		1.10	V
$C_T$	$V_R=0, f=1\text{ MHz}$			1.5	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

R0 ( 15-August 2001)

**ULTRAmi<sup>TM</sup>  
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**SOT-523 CASE - MECHANICAL OUTLINE**

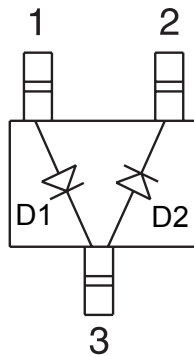
**BOTTOM VIEW**



LEAD CODE:

- 1) ANODE D1
- 2) CATHODE D2
- 3) CATHODE D1, ANODE D2

Bottom View



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.025	0.029	0.63	0.73
B	0.004	0.005	0.10	0.13
C	0.015	0.019	0.39	0.49
D	0.061	0.065	1.55	1.65
E	0.061	0.065	1.55	1.65
F	0.039	0.040	0.98	1.02
G	0.019	0.020	0.48	0.52
H	0.033	0.037	0.83	0.93
I	0.009	0.010	0.23	0.25

SOT-523 (REV: R1)

**MARKING CODE: CC5**

R0 ( 15-August 2001)