

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	Θ_{JA}	500	$^\circ\text{C/W}$

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

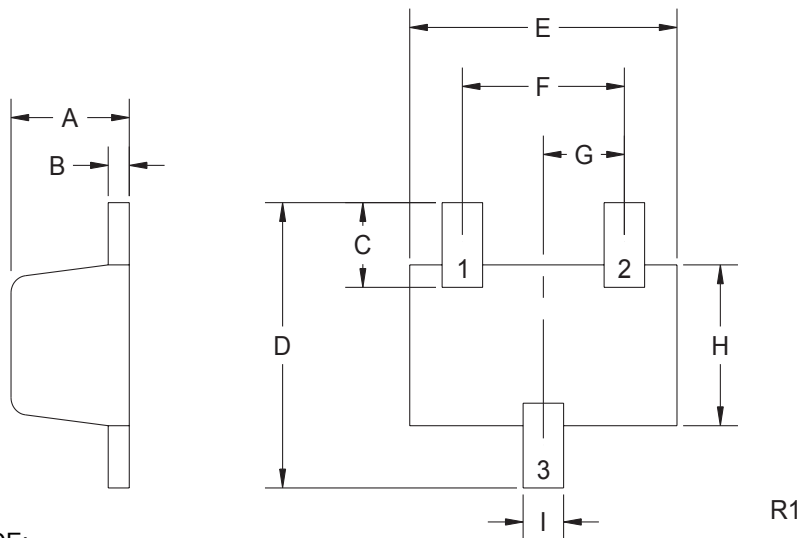
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
B_{VR}	$I_R=100\mu\text{A}$	100			V
I_R	$V_R=50\text{V}$			300	nA
I_R	$V_R=50\text{V}, T_A=125^\circ\text{C}$			100	μA
I_R	$V_R=100\text{V}$			500	nA
V_F	$I_F=1.0\text{mA}$	0.55		0.70	V
V_F	$I_F=10\text{mA}$	0.67		0.82	V
V_F	$I_F=100\text{mA}$	0.75		1.10	V
C_T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

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SOT-523 CASE - MECHANICAL OUTLINE

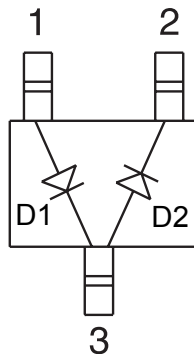
BOTTOM VIEW



LEAD CODE:

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

Bottom View



DIMENSIONS				
SYMBOL	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)