

CMSD7000

**SURFACE MOUNT SUPERmini™  
DUAL, SILICON SWITCHING DIODE  
SERIES CONNECTION**

**SUPERmini™**



**SOT-323 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSD7000 type is a ultra-high speed silicon switching diodes manufactured by the epitaxial planar process, in an epoxy molded super-mini surface mount package, connected in a series configuration, designed for high speed switching applications.

**MARKING CODE: 5CC**

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

	<b>SYMBOL</b>		<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Forward Current	$I_O$	200	mA
Peak Forward Current (tp=1 sec)	$I_{FM}$	500	mA
Power Dissipation	$P_D$	275	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	455	$^\circ\text{C/W}$

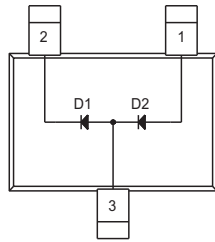
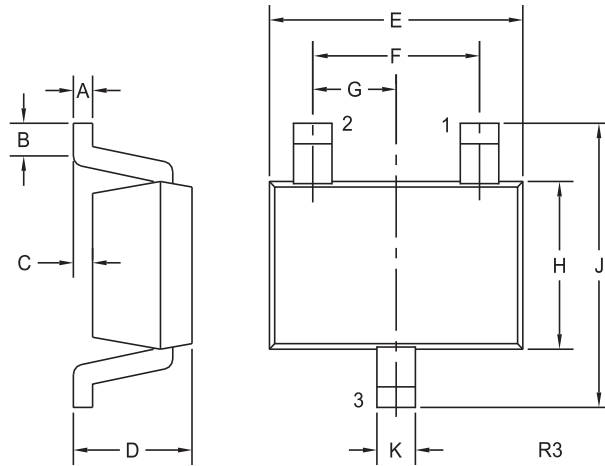
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$BV_R$	$I_R = 100\mu\text{A}$	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
$C_T$	$V_R = 0, f = 1.0\text{ MHz}$		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

R3 (21-March 2007)

**SURFACE MOUNT SUPERmini<sup>TM</sup>  
DUAL, SILICON SWITCHING DIODE  
SERIES CONNECTION**

**SOT-323 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**  
1) Anode D2  
2) Cathode D1  
3) Anode D1, Cathode D2

**MARKING CODE: 5CC**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

SOT-323 (REV: R3)