

**CMSD2004S**  
**SURFACE MOUNT**  
**SUPERmini™**  
**DUAL, SILICON SWITCHING DIODES**  
**SERIES CONNECTION**



# Central™

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSD2004S type is a silicon switching dual in series diode manufactured by the epitaxial planar process, designed for applications requiring high voltage capability.

**MARKING CODE: B6D**

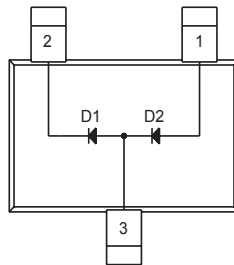
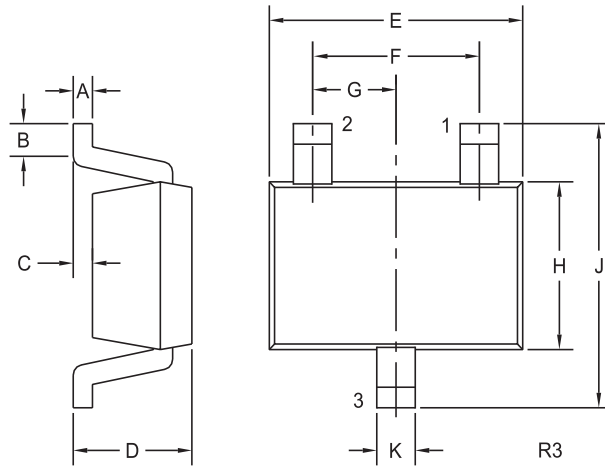
**MAXIMUM RATINGS:** ( $T_A = 25^\circ\text{C}$ )

	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	300	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Peak Repetitive Reverse Current	$I_{RRM}$	200	mA
Continuous Forward Current	$I_F$	225	mA
Peak Repetitive Forward Current	$I_{FRM}$	625	mA
Forward Surge Current $t_p=1 \mu\text{s}$	$I_{FSM}$	4.0	A
Forward Surge Current $t_p=1 \text{s}$	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	275	mW
<b>Operating and Storage</b>			
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>MAX</b>	<b>UNITS</b>
$BV_R$	$I_R=100\mu\text{A}$	300		V
$I_R$	$V_R=240\text{V}$		100	nA
$I_R$	$V_R=240\text{V}, T_A=150^\circ\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=100\text{mA}$		1.0	V
$C_T$	$V_R=0, f=1.0 \text{MHz}$		5.0	pF
$t_{rr}$	$I_F=I_R=30\text{mA}, \text{RECOV. TO. } 3.0\text{mA}, R_L=100\Omega$		50	ns

**SOT-323 CASE - MECHANICAL OUTLINE**



- LEAD CODE:**  
1) ANODE D2  
2) CATHODE D1  
3) ANODE D1, CATHODE D2

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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)