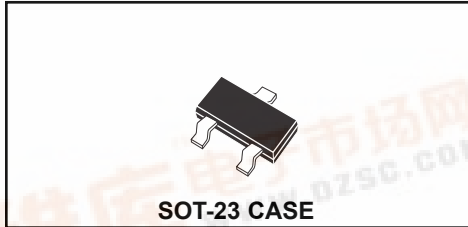


**CMPD2005S**  
**SURFACE MOUNT**  
**DUAL, IN SERIES**  
**HIGH VOLTAGE**  
**SILICON SWITCHING DIODES**



# Central<sup>TM</sup>

## Semiconductor Corp.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD2005S contains two (2) High Voltage Silicon Switching Diodes, manufactured by the epitaxial planar process, epoxy molded in a SOT-23 surface mount package, designed for applications requiring high voltage capability.

**MARKING CODE: DB5**

**MAXIMUM RATINGS** (T<sub>A</sub>=25°C)

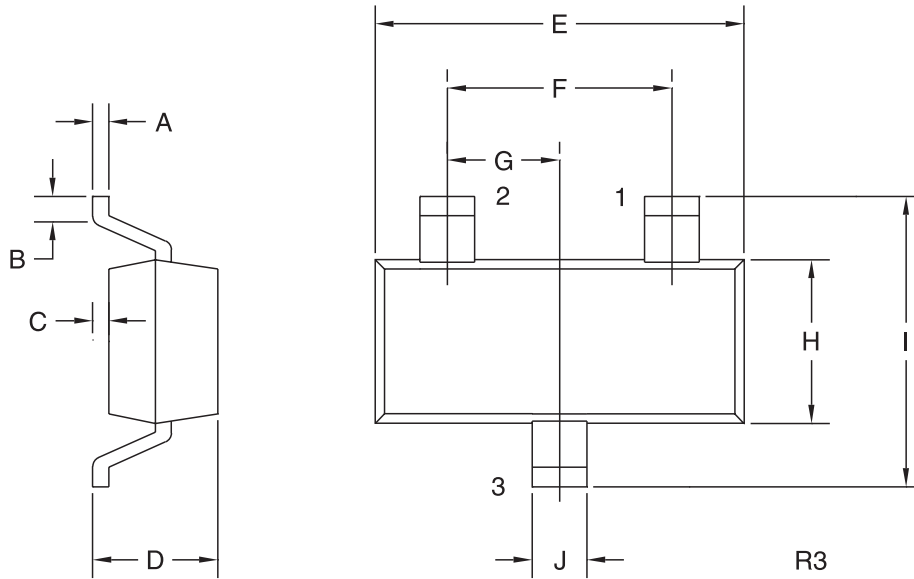
	SYMBOL		UNITS
Continuous Reverse Voltage	V <sub>R</sub>	300	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	350	V
Peak Repetitive Reverse Current	I <sub>O</sub>	200	mA
Continuous Forward Current	I <sub>F</sub>	225	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	625	mA
Forward Surge Current, tp= 1μs	I <sub>FSM</sub>	4.0	A
Forward Surge Current, tp= 1s	I <sub>FSM</sub>	1.0	A
Power Dissipation	P <sub>D</sub>	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	357	°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

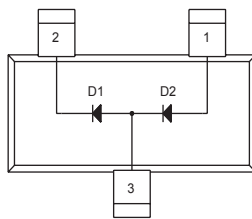
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =280V			100	nA
I <sub>R</sub>	V <sub>R</sub> =280V, T <sub>A</sub> =150°C			100	μA
BV <sub>R</sub>	I <sub>R</sub> =100μA	350			V
V <sub>F</sub>	I <sub>F</sub> =20mA			0.87	V
V <sub>F</sub>	I <sub>F</sub> =100mA			1.0	V
V <sub>F</sub>	I <sub>F</sub> =200mA			1.25	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0 MHz			5.0	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =30mA, Rec. to 3.0mA, R <sub>L</sub> =100Ω			50	ns

R1 (6-August 2003)

**SOT-23 CASE - MECHANICAL OUTLINE**



**MARKING CODE: DB5**



**LEAD CODE:**

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

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	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	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)