

CMSD2005S

SURFACE MOUNT
DUAL, IN SERIES
HIGH VOLTAGE
SILICON SWITCHING DIODES



SOT-323 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSD2005S contains two (2) High Voltage Silicon Switching Diodes, manufactured by the epitaxial planar process, epoxy molded in a SOT-323 surface mount package, designed for applications requiring high voltage capability.

MARKING CODE: B5D

MAXIMUM RATINGS (T_A=25 °C)

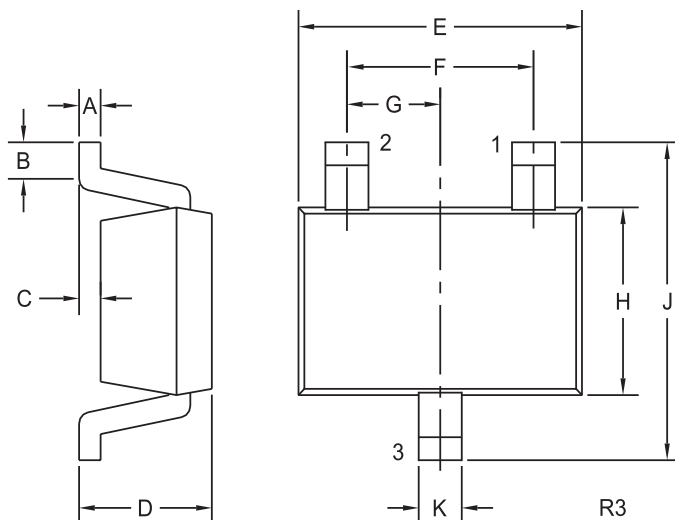
	SYMBOL		UNITS
Continuous Reverse Voltage	V _R	300	V
Peak Repetitive Reverse Voltage	V _{RRM}	350	V
Peak Repetitive Reverse Current	I _O	200	mA
Continuous Forward Current	I _F	225	mA
Peak Repetitive Forward Current	I _{FRM}	625	mA
Forward Surge Current, tp= 1 μs	I _{FSM}	4.0	A
Forward Surge Current, tp= 1s	I _{FSM}	1.0	A
Power Dissipation	P _D	275	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	Θ _{JA}	455	°C/W

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

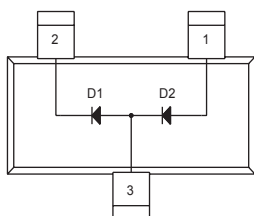
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _R	V _R =280V			100	nA
I _R	V _R =280V, T _A =150°C			100	μA
BV _R	I _R =100μA	350			V
V _F	I _F =20mA			0.87	V
V _F	I _F =100mA			1.0	V
V _F	I _F =200mA			1.25	V
C _T	V _R =0, f=1.0 MHz			5.0	pF
t _{rr}	I _R =I _F =30mA, Rec. to 3.0mA, R _L =100Ω			50	ns

R0 (17-August 2004)

SOT-323 CASE - MECHANICAL OUTLINE



MARKING CODE: B5D



LEAD CODE:

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

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)