

CMSD4448

**SUPERmini™
HIGH SPEED
SWITCHING DIODE**

SUPERmini™



SOT-323 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSD4448 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded SUPERmini™ surface mount package, designed for high switching applications.

MARKING CODE: ADA

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

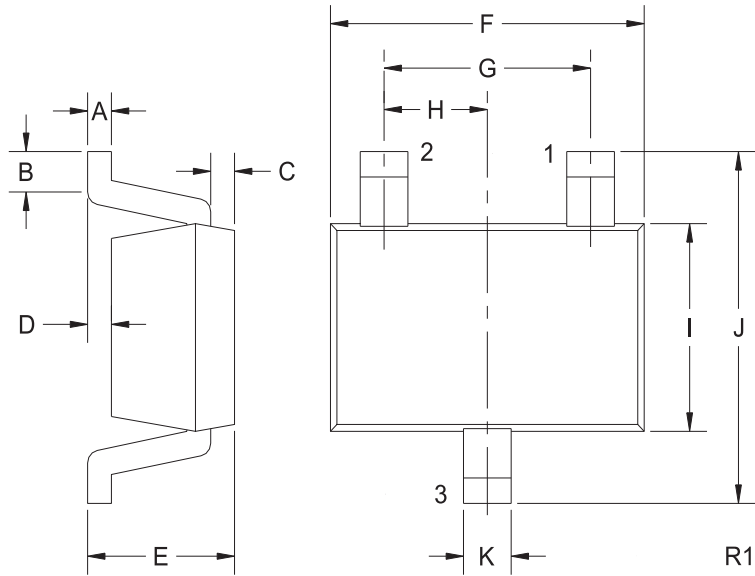
	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	250	mA
Peak Repetitive Forward Current	I_{FRM}	250	mA
Forward Surge Current $t_p=1 \mu\text{s}$	I_{FSM}	4.0	A
Forward Surge Current $t_p=1 \text{ s}$	I_{FSM}	1.0	A
Power Dissipation	P_D	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	MAX	UNITS
BV_R	$I_R=5.0\mu\text{A}$	75		V
BV_R	$I_R=100\mu\text{A}$	100		V
I_R	$V_R=20\text{V}$		25	nA
V_F	$I_F=5.0\text{mA}$	0.62	0.72	V
V_F	$I_F=100\text{mA}$		1.0	V
C_T	$V_R=0, f=1.0 \text{ MHz}$		4.0	pF
t_{rr}	$I_F=I_R=10\text{mA}, \text{RECOV. TO. } 1.0\text{mA}, R_L=100\Omega$		4.0	ns

R2 (26-September 2002)

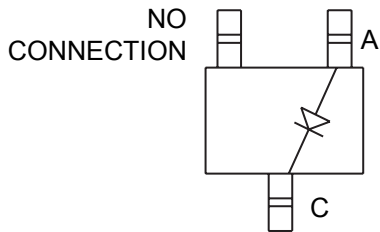
SOT-323 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) ANODE
- 2) NO CONNECTION
- 3) CATHODE

MARKING CODE: ADA



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.004	0.008	0.10	0.20
B	0.004	-	0.10	-
C	0.004	0.008	0.10	0.20
D	-	0.004	-	0.10
E	0.031	0.043	0.80	1.10
F	0.071	0.087	1.80	2.20
G	0.051		1.30	
H	0.026		0.65	
I	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: R1)