

**CMSD4448**  
**SURFACE MOUNT**  
**HIGH SPEED**  
**SILICON SWITCHING DIODE**



[www.centrasemi.com](http://www.centrasemi.com)

**SUPERmini™**



**SOT-323 CASE**

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

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$
Peak Forward Surge Current, $t_p=1.0\text{s}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

**SYMBOL**

$V_R$	75
$V_{RRM}$	100
$I_F$	250
$I_{FRM}$	500
$I_{FSM}$	4.0
$I_{FSM}$	1.0
$P_D$	275
$T_J, T_{stg}$	-65 to +150
$\theta_{JA}$	455

**UNITS**

V
V
mA
mA
A
A
mW
$^\circ\text{C}$
$^\circ\text{C/W}$

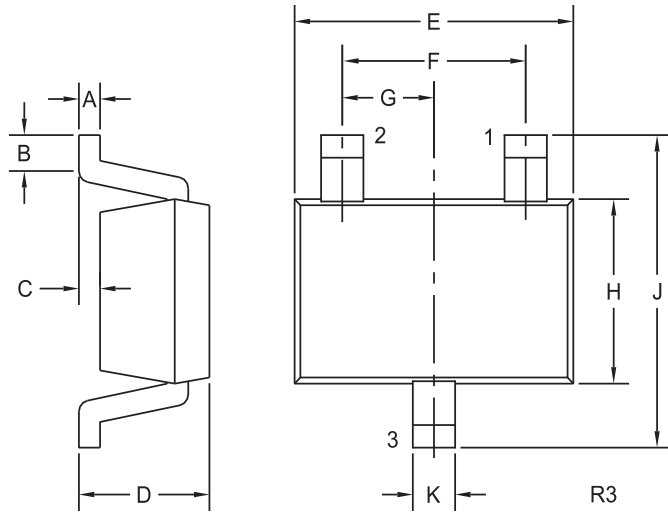
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=20\text{V}$		25	nA
$BV_R$	$I_R=5.0\mu\text{A}$	75		V
$BV_R$	$I_R=100\mu\text{A}$	100		V
$V_F$	$I_F=5.0\text{mA}$	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
$t_{rr}$	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		4.0	ns

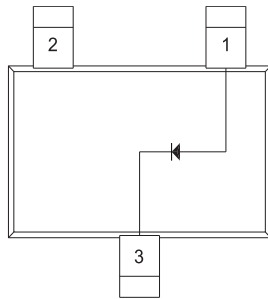
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**SOT-323 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



**LEAD CODE:**

- 1) Anode
- 2) No Connection
- 3) Cathode

**MARKING CODE: ADA**

**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)

R5 (8-February 2010)