

CMHD4448

**HIGH SPEED
SWITCHING DIODE**



SOD-123 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMHD4448 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a SOD-123 surface mount package, designed for high speed switching applications. **Marking code is C48.**

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

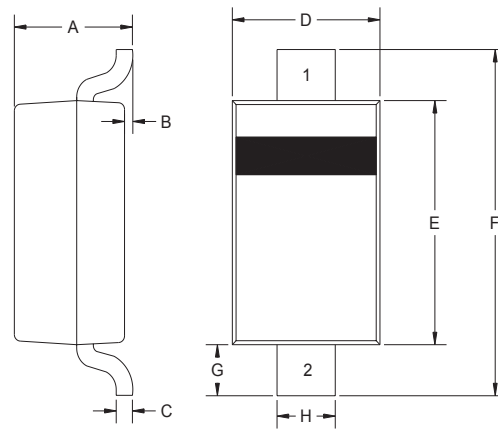
	<u>SYMBOL</u>		<u>UNITS</u>
Continuous Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Average Rectified Current	I_O	150	mA
Forward Surge Current, $t_p < 1\text{s}$, $T_C = 25^{\circ}\text{C}$	I_{FSM}	500	mA
Power Dissipation	P_D	400	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	312.5	$^{\circ}\text{C/W}$

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I_R	$V_R = 20\text{V}$		25	nA
I_R	$V_R = 20\text{V}$, $T_C = 25^{\circ}\text{C}$		50	μA
I_R	$V_R = 75\text{V}$		5.0	μA
V_{BR}	$I_R = 100\mu\text{A}$	100		V
V_F	$I_F = 5.0\text{mA}$	0.62	0.72	V
V_F	$I_F = 10\text{mA}$		1.0	V
C_T	$V_R = 0$, $f = 1\text{ MHz}$		4.0	pF
t_{rr}	$V_R = 6.0\text{V}$, $I_F = 10\text{mA}$, $I_R = 1.0\text{mA}$, $R_L = 100\Omega$		4.0	ns

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MECHANICAL OUTLINE - SOD-123



R3

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.053	0.95	1.35
B	-	0.005	-	0.12
C	-	0.008	-	0.20
D	0.055	0.071	1.40	1.80
E	0.098	0.112	2.50	2.84
F	0.140	0.154	3.55	3.90
G	0.010	-	0.25	-
H	0.020	0.028	0.50	0.70

SOD-123 (REV:R3)

Lead Code:

- 1) Cathode**
- 2) Anode**

Marking code is C48.

R2 (2-November 2001)