

**CMHD4448**  
**SURFACE MOUNT**  
**HIGH SPEED**  
**SILICON SWITCHING DIODE**



**SOD-123 CASE**

# Central<sup>TM</sup>

**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: C48**

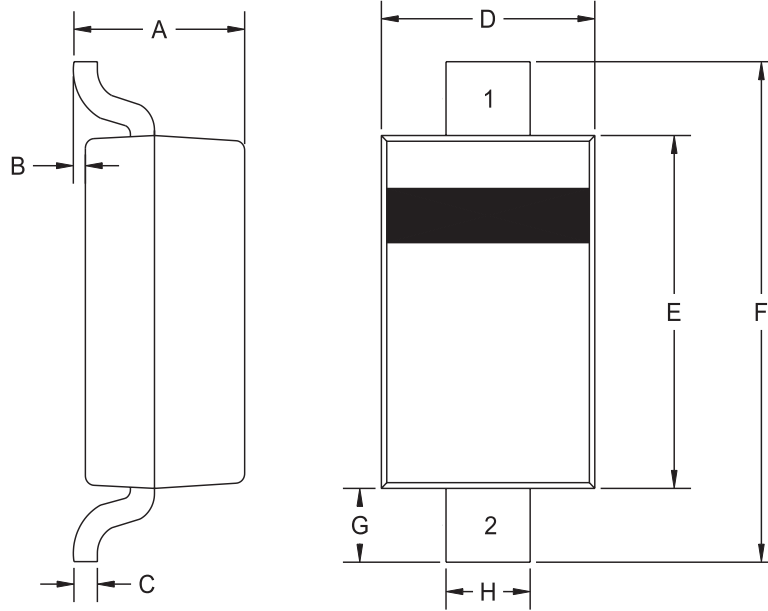
**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	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	$I_{FRM}$	500	mA
Forward Surge Current, $t_p=1\text{ms}$	$I_{FSM}$	4.0	A
Forward Surge Current, $t_p=1\text{s}$	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	400	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	312.5	$^\circ\text{C/W}$

**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
$I_R$	$V_R=20\text{V}, T_C=25^\circ\text{C}$		50	$\mu\text{A}$
$I_R$	$V_R=75\text{V}$		5.0	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	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
$C_T$	$V_R=0, f=1\text{ MHz}$		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

MECHANICAL OUTLINE - SOD-123



**LEAD CODE:**

- 1) CATHODE
- 2) ANODE

**MARKING CODE: C48**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.053	0.95	1.35
B	0.000	0.005	0.00	0.12
C	-	0.008	-	0.20
D	0.055	0.071	1.40	1.80
E	0.098	0.110	2.50	2.80
F	0.142	0.154	3.60	3.90
G	0.016	-	0.40	-
H	0.020	0.028	0.50	0.70

SOD-123 (REV:R4)

R5 (23-January 2004)