

**CMHD4448**  
**HIGH SPEED**  
**SWITCHING DIODE**



# 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 is C48.**

MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

	<u>SYMBOL</u>		<u>UNITS</u>
Continuous Reverse Voltage	V <sub>R</sub>	75	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
Average Rectified Current	I <sub>O</sub>	150	mA
Forward Surge Current, tp<1s, T <sub>C</sub> =25°C	I <sub>FSM</sub>	500	mA
Power Dissipation	P <sub>D</sub>	400	mW
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	312.5	°C/W

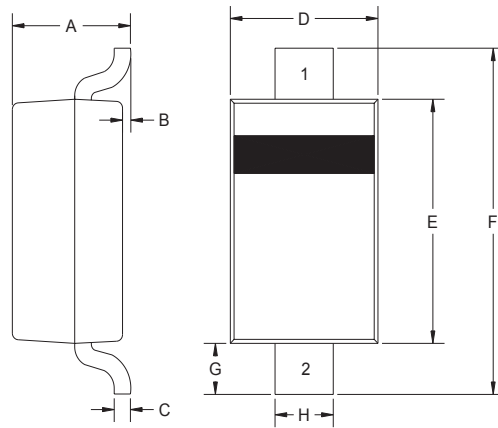
ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I <sub>R</sub>	V <sub>R</sub> =20V		25	nA
I <sub>R</sub>	V <sub>R</sub> =20V, T <sub>C</sub> =25°C		50	µA
I <sub>R</sub>	V <sub>R</sub> =75V		5.0	µA
V <sub>BR</sub>	I <sub>R</sub> =100µA	100		V
V <sub>F</sub>	I <sub>F</sub> =5.0mA	0.62	0.72	V
V <sub>F</sub>	I <sub>F</sub> =10mA		1.0	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1 MHz		4.0	pF
t <sub>rr</sub>	V <sub>R</sub> =6.0V, I <sub>F</sub> =10mA, I <sub>R</sub> =1.0mA, R <sub>L</sub> =100Ω		4.0	ns

R2 ( 2-November 2001)



**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.**