

CMHD4150
SURFACE MOUNT
HIGH SPEED SWITCHING DIODE



SOD-123 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMHD4150 type is a high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, designed for high speed switching applications.

Marking code is C50

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

	<u>SYMBOL</u>		<u>UNITS</u>
Continuous Reverse Voltage	V_R	50	V
Peak Repetitive Reverse Voltage	V_{RRM}	50	V
Continuous Forward Current	I_F	250	mA
Peak Repetitive Forward Current	I_{FRM}	250	mA
Forward Surge Current, $t_p=1$ msec.	I_{FSM}	4000	mA
Forward Surge Current, $t_p=1$ sec.	I_{FSM}	1000	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	$^{\circ}\text{C/W}$

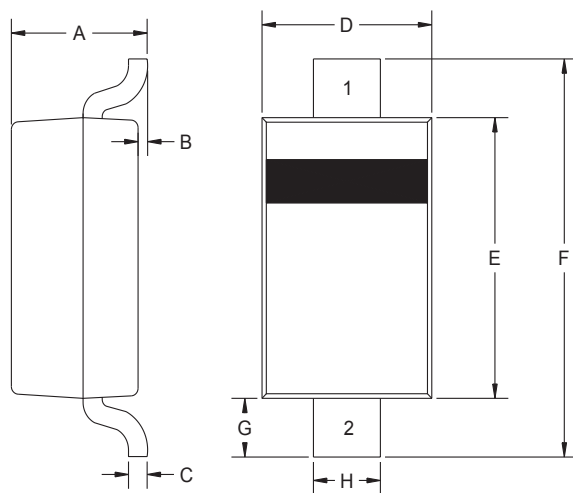
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I_R	$V_R=50\text{V}$		100	nA
V_F	$I_F=1.0\text{mA}$	0.54	0.62	V
V_F	$I_F=10\text{mA}$	0.66	0.74	V
V_F	$I_F=50\text{mA}$	0.76	0.86	V
V_F	$I_F=100\text{mA}$	0.82	0.92	V
V_F	$I_F=200\text{mA}$	0.87	1.0	V
C_T	$V_R=0$, $f=1$ MHz		4.0	pF
t_{rr}	$I_R=I_F=10\text{mA}$, $R_L=100\Omega$, Rec. to 1.0mA		4.0	ns

R0 (24-August 2001)

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SOD-123 CASE - MECHANICAL OUTLINE



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: C50

R0 (24-August 2001)