

PRELIMINARY

CMHD7006

**SURFACE MOUNT
VERY HIGH VOLTAGE
SILICON SWITCHING DIODE**



SOD-123 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The Central Semiconductor CMHD7006 is a silicon switching diode manufactured by the epitaxial planar process and packaged in an epoxy molded SOD-123 surface mount case. This device is designed for applications requiring high voltage switching diodes.

MARKING CODE: C76**MAXIMUM RATINGS:** ($T_A=25^\circ\text{C}$)

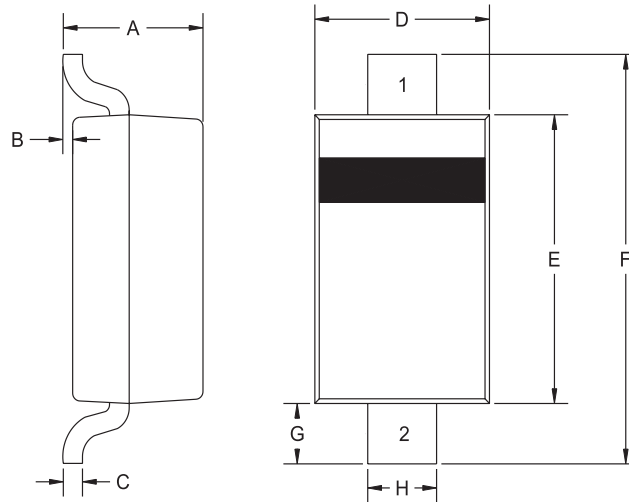
	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	600	V
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Continuous Forward Current	I_F	100	mA
Peak Repetitive Forward Current	I_{FRM}	300	mA
Forward Surge Current, $t_p=1.0\ \mu\text{s}$	I_{FSM}	4.0	A
Forward Surge Current, $t_p=1.0\ \text{s}$	I_{FSM}	1.0	A
Power Dissipation	P_D	400	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	312.5	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=480\text{V}$		7.0	100	nA
I_R	$V_R=480\text{V}, T_A=150^\circ\text{C}$			100	μA
BV_R	$I_R=1.0\ \mu\text{A}$	600	675		V
V_F	$I_F=10\text{mA}$		0.88	1.0	V
V_F	$I_F=50\text{mA}$		1.04	1.2	V
V_F	$I_F=100\text{mA}$		1.16	1.4	V
C_T	$V_R=0\text{V}, f=1.0\ \text{MHz}$			5.0	pF
t_{rr}	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$			500	ns

R0 (12-January 2004)

SOD-123 CASE - MECHANICAL OUTLINE



R4

LEAD CODE:

- 1) CATHODE
- 2) ANODE

MARKING CODE: C76

DIMENSIONS				
SYMBOL	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)