

CMHD3595

LOW LEAKAGE
SILICON DIODE



SOD-123 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMHD3595 is a Silicon Diode, manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high conductance applications requiring low leakage.

Marking Code is C95.

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

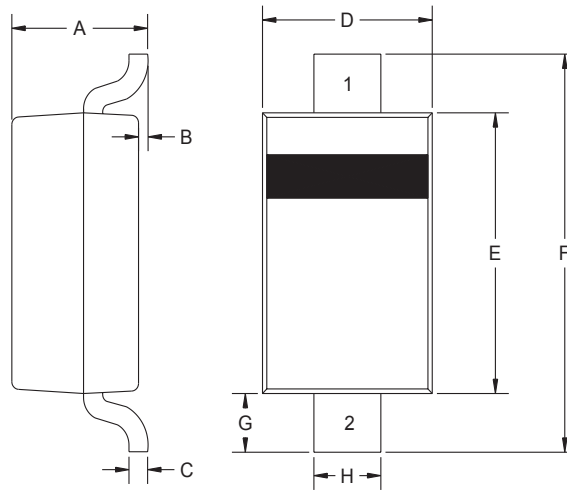
	<u>SYMBOL</u>		<u>UNITS</u>
Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Peak Working Reverse Voltage	V_{RWM}	125	V
Average Forward Current	I_O	150	mA
Forward Steady-State Current	I_F	225	mA
Recurrent Peak Forward Current	i_f	600	mA
Peak Forward Surge Current (1.0s pulse)	I_{FSM}	500	mA
Peak Forward Surge Current (1.0 μ s pulse)	I_{FSM}	4.0	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)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
BV_R	$I_R=100\mu\text{A}$	150		V
I_R	$V_R=125\text{V}$		1.0	nA
I_R	$V_R=125\text{V}, T_A=125^\circ\text{C}$		500	nA
I_R	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0	μA
I_R	$V_R=30\text{V}, T_A=125^\circ\text{C}$		300	nA
V_F	$I_F=1.0\text{mA}$	0.54	0.69	V
V_F	$I_F=5.0\text{mA}$	0.62	0.77	V
V_F	$I_F=10\text{mA}$	0.65	0.80	V
V_F	$I_F=50\text{mA}$	0.75	0.88	V
V_F	$I_F=100\text{mA}$	0.79	0.92	V
V_F	$I_F=200\text{mA}$	0.83	1.00	V
C_T	$V_R=0, f=1.0\text{MHz}$		8.0	pF
t_{rr}	$V_R=3.5\text{V}, I_F=10\text{mA}, R_L=1.0\text{k}\Omega$		3.0	μs

R2 (2-November 2001)

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: C95

R2 (2-November 2001)