

CMHZ4678  
THRU  
CMHZ4717

LOW LEVEL ZENER DIODE  
1.8 VOLTS THRU 43 VOLTS  
500mW, 5% TOLERANCE



SOD-123 CASE

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMHZ4678 Series Silicon Low Level Zener Diode is a high quality voltage regulator designed for applications requiring an extremely low operating current and low leakage.

**ABSOLUTE MAXIMUM RATINGS:**

Power Dissipation (@T<sub>A</sub>=25°C)  
Operating and Storage Temperature

**SYMBOL**

P<sub>D</sub>  
T<sub>J</sub>, T<sub>stg</sub>

500  
-65 to +200

**UNIT**

mW  
°C

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C), V<sub>F</sub>=1.5V MAX @ I<sub>F</sub>=100mA FOR ALL TYPES.

TYPE	ZENER VOLTAGE V <sub>Z</sub> @ I <sub>ZT</sub>			TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT		MAXIMUM VOLTAGE CHANGE**	MAXIMUM ZENER CURRENT	MARKING CODE
	MIN	NOM	MAX	I <sub>ZT</sub>	I <sub>R</sub> @ V <sub>R</sub>		ΔV <sub>Z</sub>	I <sub>ZM</sub>	
	VOLTS	VOLTS	VOLTS	μA	μA	VOLTS	VOLTS	mA	
CMHZ4678	1.710	1.8	1.890	50	7.5	1.0	0.70	120.0	CCC
CMHZ4679	1.900	2.0	2.100	50	5.0	1.0	0.70	110.0	CCD
CMHZ4680	2.090	2.2	2.310	50	4.0	1.0	0.75	100.0	CCE
CMHZ4681	2.280	2.4	2.520	50	2.0	1.0	0.80	95.0	CCF
CMHZ4682	2.565	2.7	2.835	50	1.0	1.0	0.85	90.0	CCH
CMHZ4683	2.850	3.0	3.150	50	0.8	1.0	0.90	85.0	CCJ
CMHZ4684	3.135	3.3	3.465	50	7.5	1.5	0.95	80.0	CCK
CMHZ4685	3.420	3.6	3.780	50	7.5	2.0	0.95	75.0	CCM
CMHZ4686	3.705	3.9	4.095	50	5.0	2.0	0.97	70.0	CCN
CMHZ4687	4.085	4.3	4.515	50	4.0	2.0	0.99	65.0	CCP
CMHZ4688	4.465	4.7	4.935	50	10	3.0	0.99	60.0	CCT
CMHZ4689	4.845	5.1	5.355	50	10	3.0	0.97	55.0	CCU
CMHZ4690	5.320	5.6	5.880	50	10	4.0	0.96	50.0	CCV
CMHZ4691	5.890	6.2	6.510	50	10	5.0	0.95	45.0	CCA
CMHZ4692	6.460	6.8	7.140	50	10	5.1	0.90	35.0	CCX
CMHZ4693	7.125	7.5	7.875	50	10	5.7	0.75	31.8	CCY
CMHZ4694	7.790	8.2	8.610	50	1.0	6.2	0.50	29.0	CCZ
CMHZ4695	8.265	8.7	9.135	50	1.0	6.6	0.10	27.4	CDC
CMHZ4696	8.645	9.1	9.555	50	1.0	6.9	0.08	26.2	CDD

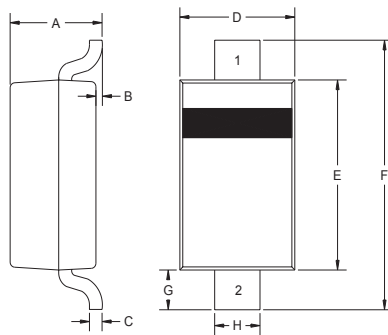
\*\* ΔV<sub>Z</sub>=V<sub>Z</sub> @ 100μA MINUS V<sub>Z</sub> @ 10μA

ELECTRICAL CHARACTERISTICS: ( $T_A=25^\circ\text{C}$ ),  $V_F=1.5\text{V MAX @ } I_F=100\text{mA}$  FOR ALL TYPES.

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT		MAXIMUM VOLTAGE CHANGE**	MAXIMUM ZENER CURRENT	MARKING CODE
	MIN	NOM	MAX	$I_{ZT}$	$I_R @ V_R$		$\Delta V_Z$	$I_{ZM}$	
	VOLTS	VOLTS	VOLTS	$\mu\text{A}$	$\mu\text{A}$	VOLTS	VOLTS	mA	
CMHZ4697	9.500	10	10.50	50	1.0	7.6	0.10	24.8	CDE
CMHZ4698	10.45	11	11.55	50	0.05	8.4	0.11	21.6	CDF
CMHZ4699	11.40	12	12.60	50	0.05	9.1	0.12	20.4	CDH
CMHZ4700	12.35	13	13.65	50	0.05	9.8	0.13	19.0	CDJ
CMHZ4701	13.30	14	14.70	50	0.05	10.6	0.14	17.5	CDK
CMHZ4702	14.25	15	15.75	50	0.05	11.4	0.15	16.3	CDM
CMHZ4703	15.20	16	16.80	50	0.05	12.1	0.16	15.4	CDN
CMHZ4704	16.15	17	17.85	50	0.05	12.9	0.17	14.5	CDP
CMHZ4705	17.10	18	18.90	50	0.05	13.6	0.18	13.2	CDT
CMHZ4706	18.05	19	19.95	50	0.05	14.4	0.19	12.5	CDU
CMHZ4707	19.00	20	21.00	50	0.01	15.2	0.20	11.9	CDV
CMHZ4708	20.90	22	23.10	50	0.01	16.7	0.22	10.8	CDA
CMHZ4709	22.80	24	25.20	50	0.01	18.2	0.24	9.9	CDZ
CMHZ4710	23.75	25	26.25	50	0.01	19.0	0.25	9.5	CDY
CMHZ4711	25.65	27	28.35	50	0.01	20.4	0.27	8.8	CEA
CMHZ4712	26.60	28	29.40	50	0.01	21.2	0.28	8.5	CEC
CMHZ4713	28.50	30	31.50	50	0.01	22.8	0.30	7.9	CED
CMHZ4714	31.35	33	34.65	50	0.01	25.0	0.33	7.2	CEE
CMHZ4715	34.20	36	37.80	50	0.01	27.3	0.36	6.6	CEF
CMHZ4716	37.05	39	40.95	50	0.01	29.6	0.39	6.1	CEH
CMHZ4717	40.85	43	45.15	50	0.01	32.6	0.43	5.5	CEJ

\*\*  $\Delta V_Z = V_Z @ 100\mu\text{A}$  MINUS  $V_Z @ 10\mu\text{A}$

### SOD-123 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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

R3

R0 ( 29-August 2001)