

CMHZ4678 THRU CMHZ4717

**SURFACE MOUNT SILICON  
LOW LEVEL ZENER DIODES  
500mW, 1.8 THRU 43 VOLT  
5% TOLERANCE**



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**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMHZ4678 series low level silicon Zener diode is a highly reliable voltage regulator designed for applications requiring an extremely low operating current and low leakage.

**MARKING CODE: SEE MARKING CODE ON  
ELECTRICAL CHARACTERISTIC TABLE**



**SOD-123 CASE**

**MAXIMUM RATINGS:** ( $T_L=75^\circ\text{C}$ )

Power Dissipation  
Operating and Storage Junction Temperature

**SYMBOL**

$P_D$   
 $T_J, T_{stg}$

**UNIT**

mW  
 $^\circ\text{C}$

**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			TEST CURRENT $I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAXIMUM ZENER CURRENT $I_{ZM}$	MAXIMUM NOISE DENSITY $N_D @ I_{ZT}$	MARKING CODE
	$V_Z @ I_{ZT}$				$\mu\text{A}$	$\mu\text{A}$			
	MIN V	NOM V	MAX V	mA			$\mu\text{V}/\sqrt{\text{Hz}}$		
CMHZ4678	1.710	1.8	1.890	50	7.5	1.0	120.0	1.0	CCC
CMHZ4679	1.900	2.0	2.100	50	5.0	1.0	110.0	1.0	CCD
CMHZ4680	2.090	2.2	2.310	50	4.0	1.0	100.0	1.0	CCE
CMHZ4681	2.280	2.4	2.520	50	2.0	1.0	95.0	1.0	CCF
CMHZ4682	2.565	2.7	2.835	50	1.0	1.0	90.0	1.0	CCH
CMHZ4683	2.850	3.0	3.150	50	0.8	1.0	85.0	1.0	CCJ
CMHZ4684	3.135	3.3	3.465	50	7.5	1.5	80.0	1.0	CCK
CMHZ4685	3.420	3.6	3.780	50	7.5	2.0	75.0	1.0	CCM
CMHZ4686	3.705	3.9	4.095	50	5.0	2.0	70.0	1.0	CCN
CMHZ4687	4.085	4.3	4.515	50	4.0	2.0	65.0	1.0	CCP
CMHZ4688	4.465	4.7	4.935	50	10	3.0	60.0	1.0	CCT
CMHZ4689	4.845	5.1	5.355	50	10	3.0	55.0	2.0	CCU
CMHZ4690	5.320	5.6	5.880	50	10	4.0	50.0	4.0	CCV
CMHZ4691	5.890	6.2	6.510	50	10	5.0	45.0	5.0	CCA
CMHZ4692	6.460	6.8	7.140	50	10	5.1	35.0	40	CCX
CMHZ4693	7.125	7.5	7.875	50	10	5.7	31.8	40	CCY
CMHZ4694	7.790	8.2	8.610	50	1.0	6.2	29.0	40	CCZ
CMHZ4695	8.265	8.7	9.135	50	1.0	6.6	27.4	40	CDC
CMHZ4696	8.645	9.1	9.555	50	1.0	6.9	26.2	40	CDD

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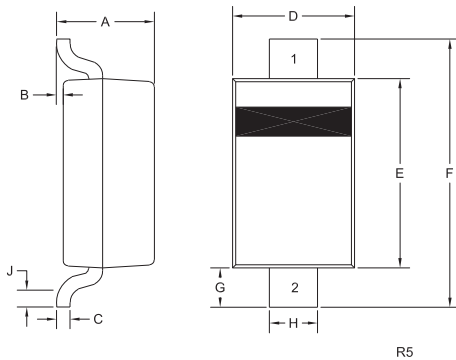
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ELECTRICAL CHARACTERISTICS - Continued: ( $T_A=25^\circ\text{C}$ ),  $V_F=1.5\text{V MAX @ } I_F=100\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE			TEST CURRENT $I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAXIMUM ZENER CURRENT $I_{ZM}$	MAXIMUM NOISE DENSITY $N_D @ I_{ZT}$	MARKING CODE
	$V_Z @ I_{ZT}$				$\mu\text{A}$	$\mu\text{A}$			
	MIN V	NOM V	MAX V	mA			$\mu\text{V}/\sqrt{\text{Hz}}$		
CMHZ4697	9.500	10	10.50	50	1.0	7.6	24.8	40	CDE
CMHZ4698	10.45	11	11.55	50	0.05	8.4	21.6	40	CDF
CMHZ4699	11.40	12	12.60	50	0.05	9.1	20.4	40	CDH
CMHZ4700	12.35	13	13.65	50	0.05	9.8	19.0	40	CDJ
CMHZ4701	13.30	14	14.70	50	0.05	10.6	17.5	40	CDK
CMHZ4702	14.25	15	15.75	50	0.05	11.4	16.3	40	CDM
CMHZ4703	15.20	16	16.80	50	0.05	12.1	15.4	40	CDN
CMHZ4704	16.15	17	17.85	50	0.05	12.9	14.5	40	CDP
CMHZ4705	17.10	18	18.90	50	0.05	13.6	13.2	40	CDT
CMHZ4706	18.05	19	19.95	50	0.05	14.4	12.5	40	CDU
CMHZ4707	19.00	20	21.00	50	0.01	15.2	11.9	40	CDV
CMHZ4708	20.90	22	23.10	50	0.01	16.7	10.8	40	CDA
CMHZ4709	22.80	24	25.20	50	0.01	18.2	9.9	40	CDZ
CMHZ4710	23.75	25	26.25	50	0.01	19.0	9.5	40	CDY
CMHZ4711	25.65	27	28.35	50	0.01	20.4	8.8	40	CEA
CMHZ4712	26.60	28	29.40	50	0.01	21.2	8.5	40	CEC
CMHZ4713	28.50	30	31.50	50	0.01	22.8	7.9	40	CED
CMHZ4714	31.35	33	34.65	50	0.01	25.0	7.2	40	CEE
CMHZ4715	34.20	36	37.80	50	0.01	27.3	6.6	40	CEF
CMHZ4716	37.05	39	40.95	50	0.01	29.6	6.1	40	CEH
CMHZ4717	40.85	43	45.15	50	0.01	32.6	5.5	40	CEJ

SOD-123 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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
J	0.010	-	0.25	-

SOD-123 (REV:R5)

Lead Code:  
1) Cathode  
2) Anode

R5

R7 (23-September 2015)

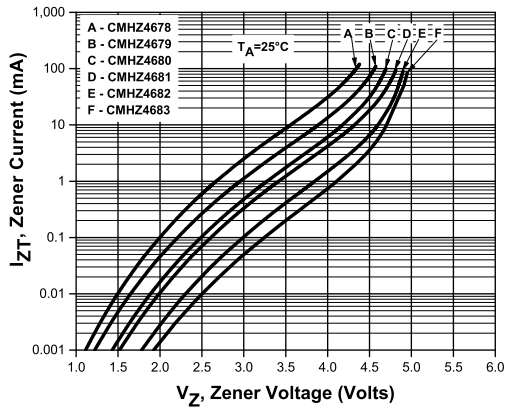
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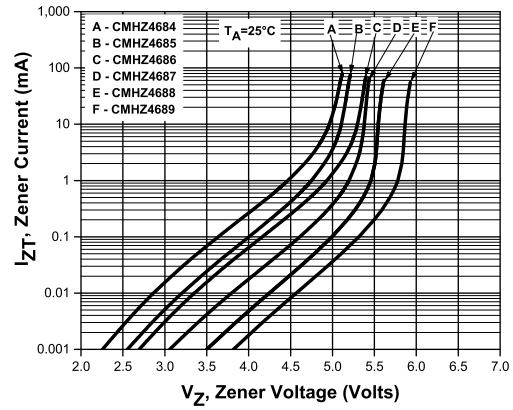


TYPICAL ELECTRICAL CHARACTERISTICS

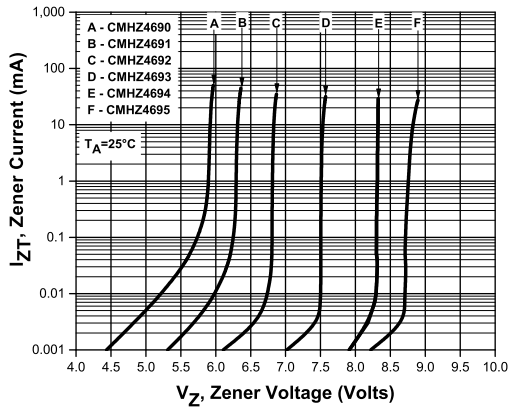
Zener Voltage, CMHZ4678-CMHZ4683



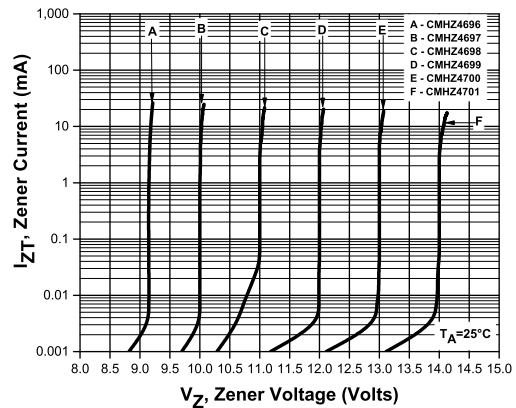
Zener Voltage, CMHZ4684-CMHZ4689



Zener Voltage, CMHZ4690-CMHZ4695



Zener Voltage, CMHZ4696-CMHZ4701



R7 (23-September 2015)

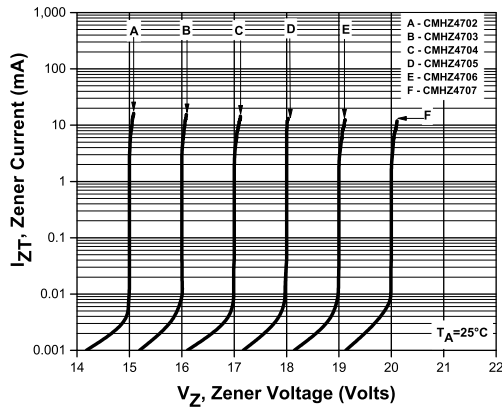
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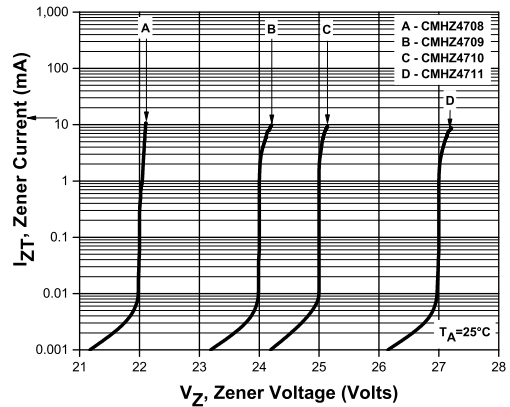


### TYPICAL ELECTRICAL CHARACTERISTICS

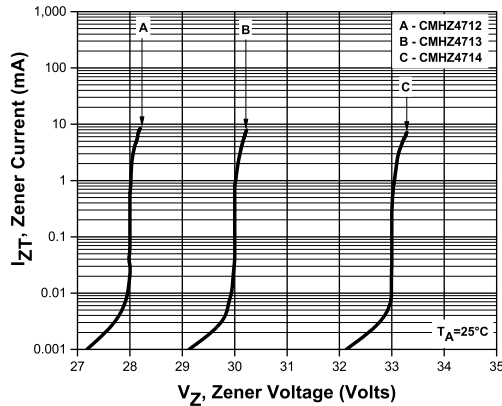
Zener Voltage, CMHZ4702-CMHZ4707



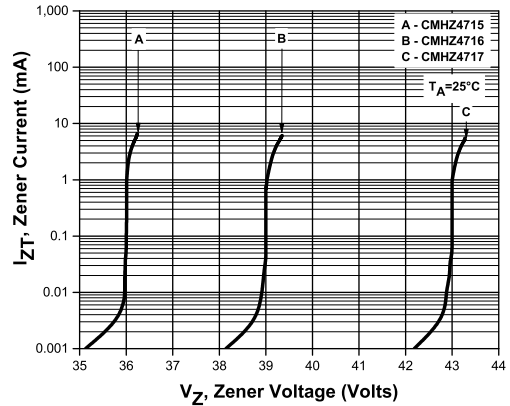
Zener Voltage, CMHZ4708-CMHZ4711



Zener Voltage, CMHZ4712-CMHZ4714



Zener Voltage, CMHZ4715-CMHZ4717



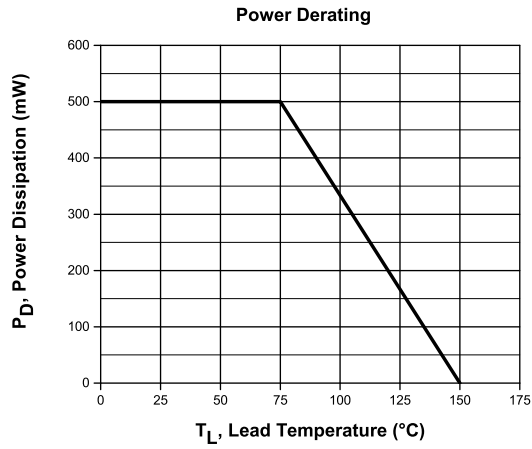
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### TYPICAL ELECTRICAL CHARACTERISTICS



R7 (23-September 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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