

CMDZ2V4 THRU CMDZ47V

**SURFACE MOUNT  
SILICON ZENER DIODE  
2.4 VOLTS THRU 47 VOLTS  
250mW, 5% TOLERANCE**

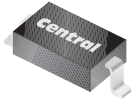


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**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDZ2V4 Series Zener Diode is a high quality voltage regulator in an epoxy-molded **SUPERmini™** package, designed for applications requiring low leakage.

**SUPERmini™**



**SOD-323 CASE**

**MARKING CODE: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE**

**MAXIMUM RATINGS:** ( $T_A = 50^\circ\text{C}$ )

Power Dissipation

**SYMBOL**

$P_D$

250

**UNIT**

mW

Operating and Storage Junction Temperature

$T_J, T_{stg}$

-65 to +175

$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A = 25^\circ\text{C}$ ),  $V_F = 0.9 \text{ MAX @ } I_F = 10 \text{ mA}$  (FOR ALL TYPES)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$ mA	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$ $\Omega$	MAXIMUM REVERSE CURRENT		MARKING CODE
	MIN	NOM	MAX			$I_R @ V_R$		
	V	V	V			$\mu\text{A}$	V	
CMDZ2V4	2.28	2.4	2.52	5.0	100	25	1.0	2V4
CMDZ2V6	2.47	2.6	2.73	5.0	100	25	1.0	2V6
CMDZ2V7	2.57	2.7	2.84	5.0	100	10	1.0	2V7
CMDZ3V0	2.85	3.0	3.15	5.0	95	5.0	1.0	3V0
CMDZ3V3	3.14	3.3	3.47	5.0	95	2.0	1.0	3V3
CMDZ3V6	3.42	3.6	3.78	5.0	90	2.0	1.0	3V6
CMDZ3V9	3.71	3.9	4.10	5.0	90	2.0	1.0	3V9
CMDZ4V3	4.09	4.3	4.52	5.0	90	1.0	1.0	4V3
CMDZ4V7	4.47	4.7	4.94	5.0	80	3.0	2.0	4V7
CMDZ5V1	4.85	5.1	5.36	5.0	60	2.0	2.0	5V1
CMDZ5V6	5.32	5.6	5.88	5.0	40	1.0	2.0	5V6
CMDZ6V2	5.89	6.2	6.51	5.0	10	3.0	4.0	6V2
CMDZ6V8	6.46	6.8	7.14	5.0	15	2.0	4.0	6V8
CMDZ7V5	7.12	7.5	7.88	5.0	15	1.0	5.0	7V5
CMDZ8V2	7.79	8.2	8.61	5.0	15	0.7	5.0	8V2
CMDZ9V1	8.65	9.1	9.56	5.0	15	0.5	6.0	9V1
CMDZ10V	9.50	10	10.50	5.0	20	0.2	7.0	10V
CMDZ11V	10.45	11	11.55	5.0	20	0.1	8.0	11V
CMDZ12V	11.40	12	12.60	5.0	25	0.1	8.0	12V
CMDZ13V	12.35	13	13.65	5.0	30	0.1	8.0	13V

R2 (8-January 2010)

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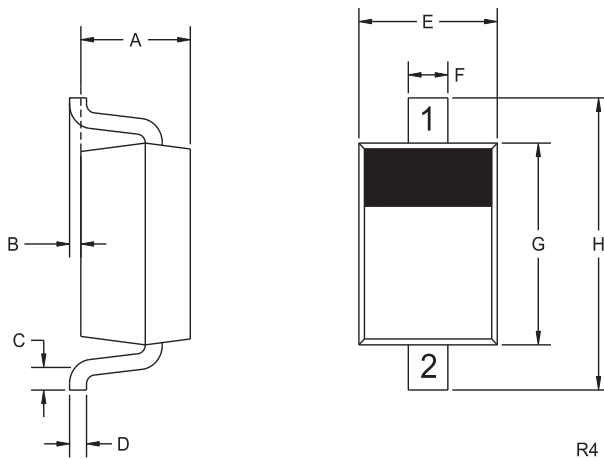
**SURFACE MOUNT  
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$ ),  $V_F=0.9$  MAX @  $I_F=10\text{mA}$  (FOR ALL TYPES)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MARKING CODE
	MIN	NOM	MAX	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$		
	V	V	V	mA	$\Omega$	$\mu\text{A}$	V	
CMDZ15V	14.25	15	15.75	5.0	30	0.05	10.5	15V
CMDZ16V	15.20	16	16.80	5.0	40	0.05	11.2	16V
CMDZ18V	17.10	18	18.90	5.0	45	0.05	12.6	18V
CMDZ20V	19.00	20	21.00	5.0	55	0.05	14.0	20V
CMDZ22V	20.90	22	23.10	5.0	55	0.05	15.4	22V
CMDZ24V	22.80	24	25.20	5.0	70	0.05	16.8	24V
CMDZ27V	25.65	27	28.35	5.0	80	0.05	18.9	27V
CMDZ30V	28.50	30	31.50	5.0	80	0.05	21.0	30V
CMDZ33V	31.35	33	34.65	5.0	80	0.05	23.1	33V
CMDZ36V	34.20	36	37.80	5.0	90	0.05	25.2	36V
CMDZ39V	37.05	39	40.95	5.0	130	0.05	27.3	39V
CMDZ43V	40.85	43	45.15	5.0	150	0.05	30.1	43V
CMDZ47V	44.65	47	49.35	5.0	180	0.05	32.9	47V

**SOD-323 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

SOD-323 (REV: R4)

**LEAD CODE:**

- 1) CATHODE
- 2) ANODE

R2 (8-January 2010)

## 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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