



**CMDZ5221B  
THRU  
CMDZ5261B**

**SUPER-MINI ZENER DIODE  
2.4 VOLTS THRU 47 VOLTS  
250mW, 5% TOLERANCE**

**Central™**  
Semiconductor Corp.

**SUPER™  
mini**



**SOD-323 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDZ5221B Series Silicon Zener Diode is a high quality voltage regulator, manufactured in a super-mini surface mount package, designed for use in industrial, commercial, entertainment and computer applications.

**ABSOLUTE MAXIMUM RATINGS:**

Power Dissipation (@ $T_A=25^\circ\text{C}$ )  
Operating and Storage Temperature  
Thermal Resistance

**SYMBOL**

$P_D$  250  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  500

**UNIT**

mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

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

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDENCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER VOLTAGE TEMPERATURE COEFFICIENT
	MIN	NOM	MAX	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		
	VOLTS	VOLTS	VOLTS	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	VOLTS	%/ $^\circ\text{C}$
CMDZ5221B	2.280	2.4	2.520	20	30	1200	0.25	100	1.0	-0.085
CMDZ5222B	2.375	2.5	2.625	20	30	1250	0.25	100	1.0	-0.085
CMDZ5223B	2.565	2.7	2.835	20	30	1300	0.25	75	1.0	-0.080
CMDZ5224B	2.660	2.8	2.940	20	30	1400	0.25	75	1.0	-0.080
CMDZ5225B	2.850	3.0	3.150	20	29	1600	0.25	50	1.0	-0.075
CMDZ5226B	3.135	3.3	3.465	20	28	1600	0.25	25	1.0	-0.070
CMDZ5227B	3.420	3.6	3.780	20	24	1700	0.25	15	1.0	-0.065
CMDZ5228B	3.705	3.9	4.095	20	23	1900	0.25	10	1.0	-0.060
CMDZ5229B	4.085	4.3	4.515	20	22	2000	0.25	5.0	1.0	$\pm 0.055$
CMDZ5230B	4.465	4.7	4.935	20	19	1900	0.25	5.0	2.0	$\pm 0.030$
CMDZ5231B	4.845	5.1	5.355	20	17	1600	0.25	5.0	2.0	$\pm 0.030$
CMDZ5232B	5.320	5.6	5.880	20	11	1600	0.25	5.0	3.0	+0.038
CMDZ5233B	5.700	6.0	6.300	20	7.0	1600	0.25	5.0	3.5	+0.038
CMDZ5234B	5.890	6.2	6.510	20	7.0	1000	0.25	5.0	4.0	+0.045
CMDZ5235B	6.460	6.8	7.140	20	5.0	750	0.25	3.0	5.0	+0.050
CMDZ5236B	7.125	7.5	7.875	20	6.0	500	0.25	3.0	6.0	+0.058
CMDZ5237B	7.790	8.2	8.610	20	8.0	500	0.25	3.0	6.5	+0.062
CMDZ5238B	8.265	8.7	9.135	20	8.0	600	0.25	3.0	6.5	+0.065
CMDZ5239B	8.645	9.1	9.555	20	10	600	0.25	3.0	7.0	+0.068
CMDZ5240B	9.500	10	10.50	20	17	600	0.25	3.0	8.0	+0.075
CMDZ5241B	10.45	11	11.55	20	22	600	0.25	2.0	8.4	+0.076
CMDZ5242B	11.40	12	12.60	20	30	600	0.25	1.0	9.1	+0.077

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

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDENCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER VOLTAGE TEMPERATURE COEFFICIENT
	MIN	NOM	MAX		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$	
	VOLTS	VOLTS	VOLTS	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	VOLTS	%/°C
CMDZ5243B	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9	+0.079
CMDZ5244B	13.30	14	14.70	9.0	15	600	0.25	0.1	10	+0.082
CMDZ5245B	14.25	15	15.75	8.5	16	600	0.25	0.1	11	+0.082
CMDZ5246B	15.20	16	16.80	7.8	17	600	0.25	0.1	12	+0.083
CMDZ5247B	16.15	17	17.85	7.4	19	600	0.25	0.1	13	+0.084
CMDZ5248B	17.10	18	18.90	7.0	21	600	0.25	0.1	14	+0.085
CMDZ5249B	18.05	19	19.95	6.6	23	600	0.25	0.1	14	+0.086
CMDZ5250B	19.00	20	21.00	6.2	25	600	0.25	0.1	15	+0.086
CMDZ5251B	20.90	22	23.10	5.6	29	600	0.25	0.1	17	+0.087
CMDZ5252B	22.80	24	25.20	5.2	33	600	0.25	0.1	18	+0.088
CMDZ5253B	23.75	25	26.25	5.0	35	600	0.25	0.1	19	+0.089
CMDZ5254B	25.65	27	28.35	4.6	41	600	0.25	0.1	21	+0.090
CMDZ5255B	26.60	28	29.40	4.5	44	600	0.25	0.1	21	+0.091
CMDZ5256B	28.50	30	31.50	4.2	49	600	0.25	0.1	23	+0.091
CMDZ5257B	31.35	33	34.65	3.8	58	700	0.25	0.1	25	+0.092
CMDZ5258B	34.20	36	37.80	3.4	70	700	0.25	0.1	27	+0.093
CMDZ5259B	37.05	39	40.95	3.2	80	800	0.25	0.1	30	+0.094
CMDZ5260B	40.85	43	45.15	3.0	93	900	0.25	0.1	33	+0.095
CMDZ5261B	44.65	47	49.35	2.7	105	1000	0.25	0.1	36	+0.095

All dimensions in inches (mm).

