



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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CMSZ5221B THRU CMSZ5267B

**SURFACE MOUNT
SILICON ZENER DIODE
275mW, 2.4 THRU 75 VOLTS
5% TOLERANCE**

SUPERmini™



SOT-323 CASE

• Device is **Halogen Free** by design

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

Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

P_D
 T_J, T_{stg}
 θ_{JA}

UNITS

275
-65 to +150
455
mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSZ5221B series silicon Zener diode is a high quality voltage regulator for use in industrial, commercial, entertainment and computer applications.

MARKING CODE: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE

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			TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZK} @ I_{ZK}$		MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAXIMUM TEMPERATURE COEFFICIENT θ_{VZ}	MARKING CODE
	$V_Z @ I_{ZT}$					Ω	Ω	mA	μA		
	MIN V	NOM V	MAX V	mA	Ω					Ω	
CMSZ5221B	2.280	2.4	2.520	20	30	1200	0.25	100	1.0	-0.085	8A1
CMSZ5222B	2.375	2.5	2.625	20	30	1250	0.25	100	1.0	-0.085	8B1
CMSZ5223B	2.565	2.7	2.835	20	30	1300	0.25	75	1.0	-0.080	8C1
CMSZ5224B	2.660	2.8	2.940	20	30	1400	0.25	75	1.0	-0.080	8D1
CMSZ5225B	2.850	3.0	3.150	20	29	1600	0.25	50	1.0	-0.075	8E1
CMSZ5226B	3.135	3.3	3.465	20	28	1600	0.25	25	1.0	-0.070	8AC
CMSZ5227B	3.420	3.6	3.780	20	24	1700	0.25	15	1.0	-0.065	8BC
CMSZ5228B	3.705	3.9	4.095	20	23	1900	0.25	10	1.0	-0.060	8CC
CMSZ5229B	4.085	4.3	4.515	20	22	2000	0.25	5.0	1.0	± 0.055	8DC
CMSZ5230B	4.465	4.7	4.935	20	19	1900	0.25	5.0	2.0	± 0.030	8EC
CMSZ5231B	4.845	5.1	5.335	20	17	1600	0.25	5.0	2.0	± 0.030	8FC
CMSZ5232B	5.320	5.6	5.880	20	11	1600	0.25	5.0	3.0	+0.038	8GC
CMSZ5233B	5.700	6.0	6.300	20	7.0	1600	0.25	5.0	3.5	+0.038	8HC
CMSZ5234B	5.890	6.2	6.510	20	7.0	1000	0.25	3.0	4.0	+0.045	8JC
CMSZ5235B	6.460	6.8	7.140	20	5.0	750	0.25	3.0	5.0	+0.050	8KC
CMSZ5236B	7.125	7.5	7.875	20	6.0	500	0.25	3.0	6.0	+0.058	8LC
CMSZ5237B	7.790	8.2	8.610	20	8.0	500	0.25	3.0	6.5	+0.062	8MC
CMSZ5238B	8.265	8.7	9.135	20	8.0	600	0.25	3.0	6.5	+0.065	8NC
CMSZ5239B	8.645	9.1	9.555	20	10	600	0.25	3.0	7.0	+0.068	8PC
CMSZ5240B	9.500	10	10.50	20	17	600	0.25	3.0	8.0	+0.075	8QC
CMSZ5241B	10.45	11	11.55	20	22	600	0.25	2.0	8.4	+0.076	8RC
CMSZ5242B	11.40	12	12.60	20	30	600	0.25	1.0	9.1	+0.077	8SC
CMSZ5243B	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9	+0.079	8TC
CMSZ5244B	13.30	14	14.70	9.0	15	600	0.25	0.1	10	+0.082	8UC



CMSZ5221B THRU CMSZ5267B

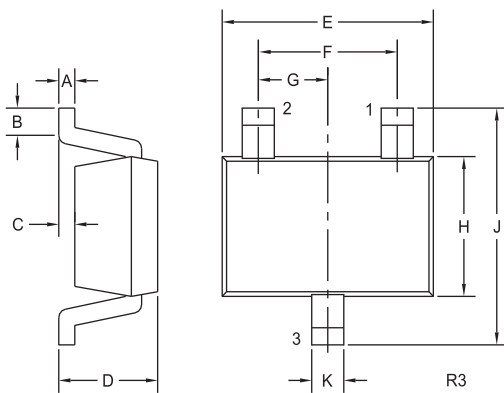
**SURFACE MOUNT
SILICON ZENER DIODE
275mW, 2.4 THRU 75 VOLTS
5% TOLERANCE**



ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$) $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$ (for all types)

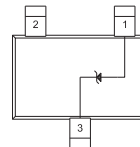
TYPE	ZENER VOLTAGE			TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZK} @ I_{ZK}$	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT ΘV_Z	MARKING CODE	
	$V_Z @ I_{ZT}$						μA	V			
	MIN V	NOM V	MAX V	mA	Ω	Ω			mA		
CMSZ5245B	14.25	15	15.75	8.5	16	600	0.25	0.1	11	+0.082	8VC
CMSZ5246B	15.20	16	16.80	7.8	17	600	0.25	0.1	12	+0.083	8WC
CMSZ5247B	16.15	17	17.85	7.4	19	600	0.25	0.1	13	+0.084	8XC
CMSZ5248B	17.10	18	18.90	7.0	21	600	0.25	0.1	14	+0.085	8YC
CMSZ5249B	18.05	19	19.95	6.6	23	600	0.25	0.1	14	+0.086	8ZC
CMSZ5250B	19	20	21	6.2	25	600	0.25	0.1	15	+0.086	1A8
CMSZ5251B	20.90	22	23.10	5.6	29	600	0.25	0.1	17	+0.087	1B8
CMSZ5252B	22.80	24	25.20	5.2	33	600	0.25	0.1	18	+0.088	1C8
CMSZ5253B	23.75	25	26.25	5.0	35	600	0.25	0.1	19	+0.089	1D8
CMSZ5254B	25.65	27	28.35	4.6	41	600	0.25	0.1	21	+0.090	1E8
CMSZ5255B	26.60	28	29.40	4.5	44	600	0.25	0.1	21	+0.091	1F8
CMSZ5256B	28.50	30	31.50	4.2	49	600	0.25	0.1	23	+0.091	1G8
CMSZ5257B	31.35	33	34.65	3.8	58	700	0.25	0.1	25	+0.092	1H8
CMSZ5258B	34.20	36	37.80	3.4	70	700	0.25	0.1	27	+0.093	1J8
CMSZ5259B	37.05	39	40.95	3.2	80	800	0.25	0.1	30	+0.094	1K8
CMSZ5260B	40.85	43	45.15	3.0	93	900	0.25	0.1	33	+0.095	1L8
CMSZ5261B	44.65	47	49.35	2.7	105	1000	0.25	0.1	36	+0.095	1M8
CMSZ5262B	48.45	51	53.55	2.5	125	1100	0.25	0.1	39	+0.096	1N8
CMSZ5263B	53.20	56	58.80	2.2	150	1300	0.25	0.1	43	+0.096	1P8
CMSZ5264B	57.00	60	63.00	2.1	170	1400	0.25	0.1	46	+0.097	1R8
CMSZ5265B	58.90	62	65.10	2.0	185	1400	0.25	0.1	47	+0.097	1S8
CMSZ5266B	64.60	68	71.40	1.8	230	1600	0.25	0.1	52	+0.097	1T8
CMSZ5267B	71.25	75	78.75	1.7	270	1700	0.25	0.1	56	+0.098	1U8

SOT-323 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

SOT-323 (REV: R3)



LEAD CODE:
1) Anode
2) No Connection
3) Cathode

R5 (12-December 2012)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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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