CMZ5334B THRU CMZ5388B

SURFACE MOUNT SILICON HIGH POWER ZENER DIODES 5.0 WATT, 3.6 THRU 200 VOLT ±5% TOLERANCE



SMC CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMZ5334B series silicon Zener diodes are voltage regulators, manufactured in an epoxy molded surface mount package, and designed for use in industrial, commercial, entertainment and computer applications.

MARKING: SEE MARKING CODE ON ELECTRICAL CHARACTERISTICS TABLE

MAXIMUM RATINGS:	**SYMBOL**		**UNITS**
Power Dissipation (T_L=50°C)	P_D	10	W
Power Dissipation (T_L=100°C)	P_D	5.0	W
Power Dissipation (T_A=25°C) (Note 1)	P_D	2.0	W
Operating Junction Temperature	T_J	-65 to +175	°C
Storage Temperature	T_{stg}	-65 to +200	°C
Thermal Resistance	Θ_{JL}	12.5	°C/W
Thermal Resistance (Note 1)	Θ_{JA}	75	°C/W

Note 1: Mounted on 2 inch square FR-4 PCB with minimum recommended SMC copper pad area.

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.2V MAX @ I_F=1.0A (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2)	MAXIMUM REGULATOR CURRENT (T_L=75°C)	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		i_r	I_{ZM}	
	V	V	V	mA	Ω	Ω	mA	μA	V	A	mA	
CMZ5334B*	3.420	3.6	3.780	350	3.0	500	1.0	150	1.0	18.7	1320	C5334B
CMZ5335B*	3.705	3.9	4.095	320	2.0	500	1.0	50	1.0	17.6	1220	C5335B
CMZ5336B*	4.085	4.3	4.515	290	2.0	500	1.0	10	1.0	16.4	1100	C5336B
CMZ5337B*	4.465	4.7	4.935	264	2.0	450	1.0	10	1.0	15.3	1010	C5337B
CMZ5338B*	4.845	5.1	5.355	240	2.0	400	1.0	10	1.0	14.4	930	C5338B
CMZ5339B	5.320	5.6	5.880	220	1.0	400	1.0	10	2.0	13.4	865	C5339B
CMZ5340B	5.700	6.0	6.300	200	1.0	300	1.0	10	3.0	12.7	790	C5340B
CMZ5342B	6.460	6.8	7.140	175	1.0	200	1.0	100	5.2	11.5	700	C5342B
CMZ5343B	7.125	7.5	7.875	175	1.5	200	1.0	100	5.7	10.7	630	C5343B
CMZ5344B	7.790	8.2	8.610	150	1.5	200	1.0	100	6.2	10.0	580	C5344B
CMZ5345B	8.265	8.7	9.135	150	2.0	200	1.0	100	6.6	7.5	545	C5345B
CMZ5346B	8.645	9.1	9.555	150	2.0	150	1.0	7.5	6.9	9.2	520	C5346B
CMZ5347B	9.500	10	10.50	125	2.0	125	1.0	5.0	7.6	8.6	475	C5347B
CMZ5348B	10.45	11	11.55	125	2.5	125	1.0	5.0	8.4	8.0	430	C5348B
CMZ5349B	11.40	12	12.60	100	2.5	125	1.0	2.0	9.1	7.5	395	C5349B
CMZ5350B	12.35	13	13.65	100	2.5	100	1.0	1.0	9.9	7.0	365	C5350B
CMZ5351B	13.30	14	14.70	100	2.5	75	1.0	1.0	10.6	6.7	340	C5351B
CMZ5352B	14.25	15	15.75	75	2.5	75	1.0	1.0	11.5	6.3	315	C5352B
CMZ5353B	15.20	16	16.80	75	2.5	75	1.0	1.0	12.2	6.0	295	C5353B
CMZ5354B	16.15	17	17.85	70	2.5	75	1.0	0.5	12.9	5.8	280	C5354B
CMZ5355B	17.10	18	18.90	65	2.5	75	1.0	0.5	13.7	5.5	264	C5355B
CMZ5356B	18.05	19	19.95	65	3.0	75	1.0	0.5	14.4	5.3	250	C5356B

Note 2: Surge Current (i_r) - Maximum allowable peak, non-recurrent square wave current (tp=8.3ms).

*Available on special order; minimum quantity may apply; consult factory.

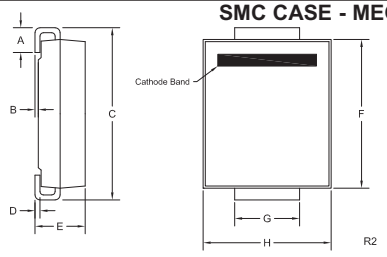
CMZ5334B THRU CMZ5388B

SURFACE MOUNT SILICON HIGH POWER ZENER DIODES 5.0 WATT, 3.6 THRU 200 VOLT ±5% TOLERANCE

ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.2V MAX @ I_F=1.0A (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2)	MAXIMUM REGULATOR CURRENT (T_L=75°C)	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		i_r	I_{ZM}	
	V	V	V	mA	Ω	Ω	mA	μA	V	A	mA	
CMZ5357B	19.00	20	21.00	65	3.0	75	1.0	0.5	15.2	5.1	237	C5357B
CMZ5358B	20.90	22	23.10	50	3.5	75	1.0	0.5	16.7	4.7	216	C5358B
CMZ5359B	22.80	24	25.20	50	3.5	100	1.0	0.5	18.2	4.4	198	C5359B
CMZ5360B	23.75	25	26.25	50	4.0	110	1.0	0.5	19.0	4.3	190	C5360B
CMZ5361B	25.65	27	28.35	50	5.0	120	1.0	0.5	20.6	4.1	176	C5361B
CMZ5362B	26.60	28	29.40	50	6.0	130	1.0	0.5	21.2	3.9	170	C5362B
CMZ5363B	28.50	30	31.50	40	8.0	140	1.0	0.5	22.8	3.7	158	C5363B
CMZ5364B	31.35	33	34.65	40	10	150	1.0	0.5	25.1	3.5	144	C5364B
CMZ5365B	34.20	36	37.80	30	11	160	1.0	0.5	27.4	3.3	132	C5365B
CMZ5366B	37.05	39	40.95	30	14	170	1.0	0.5	29.7	3.1	122	C5366B
CMZ5367B	40.85	43	45.15	30	20	190	1.0	0.5	32.7	2.8	110	C5367B
CMZ5368B	44.65	47	49.35	25	25	210	1.0	0.5	35.8	2.7	100	C5368B
CMZ5369B	48.45	51	53.55	25	27	230	1.0	0.5	38.8	2.5	93.0	C5369B
CMZ5370B	53.20	56	58.80	20	35	280	1.0	0.5	42.6	2.3	86.0	C5370B
CMZ5371B	57.00	60	63.00	20	40	350	1.0	0.5	45.5	2.2	79.0	C5371B
CMZ5372B	58.90	62	65.10	20	42	400	1.0	0.5	47.1	2.1	76.0	C5372B
CMZ5373B	64.60	68	71.40	20	44	500	1.0	0.5	51.7	2.0	70.0	C5373B
CMZ5374B	71.25	75	78.75	20	45	620	1.0	0.5	56.0	1.9	63.0	C5374B
CMZ5375B	77.90	82	86.10	15	65	720	1.0	0.5	62.2	1.8	58.0	C5375B
CMZ5376B	82.65	87	91.35	15	75	760	1.0	0.5	66.0	1.7	54.5	C5376B
CMZ5377B	86.45	91	95.55	15	75	760	1.0	0.5	69.2	1.6	52.5	C5377B
CMZ5378B	95.00	100	105.0	12	90	800	1.0	0.5	76.0	1.5	47.5	C5378B
CMZ5379B	104.5	110	115.5	12	125	1000	1.0	0.5	83.6	1.4	43.0	C5379B
CMZ5380B	114.0	120	126.0	10	170	1150	1.0	0.5	91.2	1.3	39.5	C5380B
CMZ5381B	123.5	130	136.5	10	190	1250	1.0	0.5	98.8	1.2	36.6	C5381B
CMZ5382B	133.0	140	147.0	8.0	230	1500	1.0	0.5	106	1.2	34.0	C5382B
CMZ5383B	142.5	150	157.5	8.0	330	1500	1.0	0.5	114	1.1	31.6	C5383B
CMZ5384B	152.0	160	168.0	8.0	350	1650	1.0	0.5	122	1.1	29.4	C5384B
CMZ5385B	161.5	170	178.5	8.0	380	1750	1.0	0.5	129	1.0	28.0	C5385B
CMZ5386B	171.0	180	189.0	5.0	430	1750	1.0	0.5	137	1.0	26.4	C5386B
CMZ5387B	180.5	190	199.5	5.0	450	1850	1.0	0.5	144	0.9	25.0	C5387B
CMZ5388B	190.0	200	210.0	5.0	480	1850	1.0	0.5	152	0.9	23.6	C5388B

SMC CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

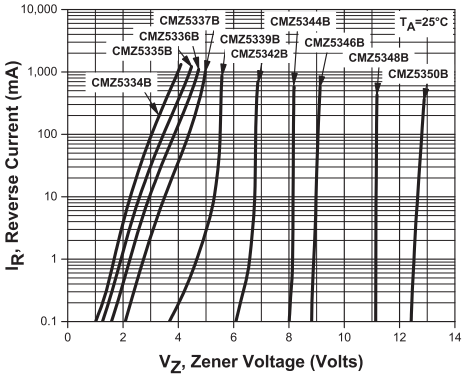
R18 (4-September 2019)

CMZ5334B THRU CMZ5388B

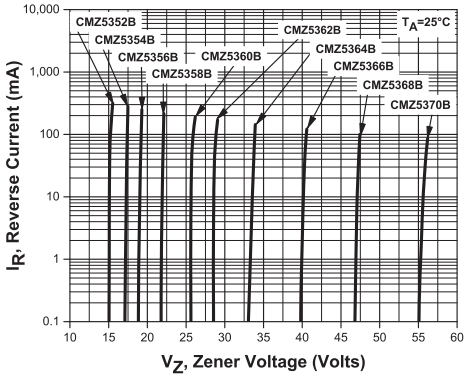
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TYPICAL ELECTRICAL CHARACTERISTICS

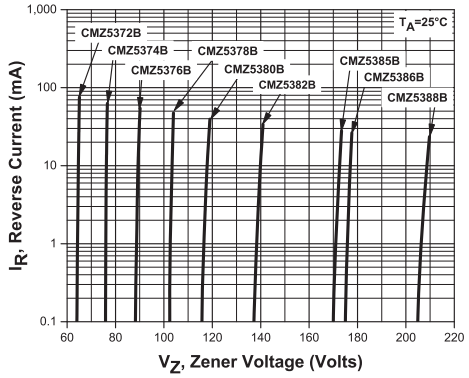
Zener Voltage CMZ5334B thru CMZ5350B



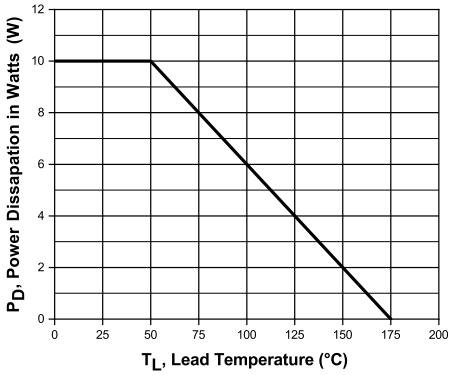
Zener Voltage CMZ5352B thru CMZ5370B



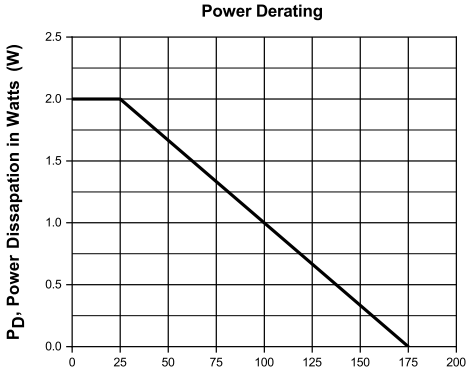
Zener Voltage CMZ5372B thru CMZ5388B



Power Derating



Power Derating



Note: Mounted on 2 inch square FR-4 PCB with minimum recommended SMC copper pad area.

R18 (4-September 2019)

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).

CONTACT US

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Worldwide Distributors:
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Product End of Life Notification

PDN ID:	PDN01081
Notification Date:	4/30/18
Last Buy Date:	10/30/18
Last Shipment Date	4/30/19

Summary:All low voltage Zener diodes, less than 5.6V, in the SMA, SMB and SMC case types are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

Central Part Number	Replacement
CMZ5334B BK	N/A
CMZ5334B TR13	N/A
CMZ5335B BK	N/A
CMZ5335B TR13	N/A
CMZ5336B BK	N/A
CMZ5336B TR13	N/A
CMZ5337B BK	N/A
CMZ5337B TR13	N/A
CMZ5338B BK	N/A
CMZ5338B TR13	N/A
CMZ5913B BK	N/A
CMZ5913B TR13	N/A
CMZ5914B BK	N/A
CMZ5914B TR13	N/A
CMZ5914BP BK	N/A
CMZ5914BP TR13	N/A
CMZ5915B BK	N/A
CMZ5915B TR13	N/A
CMZ5915BP TR13	N/A
CMZ5916B BK	N/A
CMZ5916B TR13	N/A
CMZ5916BP TR13	N/A
CMZ5917B BK	N/A
CMZ5917B TR13	N/A
CMZ5917BP BK	N/A
CMZ5917BP TR13	N/A
CMZ5918B BK	N/A
CMZ5918B TR13	N/A
CMZ5918BP BK	N/A
CMZ5918BP TR13	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.