

CMZ5339BQ THRU CMZ5373BQ

**SURFACE MOUNT SILICON
AUTOMOTIVE ZENER DIODES
5.0 WATT, 5.6 THRU 68 VOLT
±5% TOLERANCE**



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMZ5339BQ series silicon Zener diodes are voltage regulators, in an epoxy molded surface mount package, manufactured and qualified to AEC-Q101.

MARKING: SEE MARKING CODE ON ELECTRICAL CHARACTERISTICS TABLE



SMC CASE

MAXIMUM RATINGS:

Power Dissipation ($T_L=50^\circ\text{C}$) (Note 1)
Power Dissipation ($T_L=100^\circ\text{C}$) (Note 1)
Operating Junction Temperature
Storage Temperature
Thermal Resistance (Note 1)

SYMBOL

P_D 10
 P_D 5.0
 T_J -65 to +175
 T_{stg} -65 to +200
 Θ_{JL} 12.5

UNITS

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

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

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX @ } I_F=1.0\text{A}$ (for all types)

TYPE	ZENER VOLTAGE V _Z @ I _{ZT}			TEST CURRENT I _{ZT}	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2) I _r	MAXIMUM REGULATOR CURRENT (T _L =75°C) I _{ZM}	MARKING CODE
	MIN	NOM	MAX		Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _R @ V _R					
	V	V	V		Ω	Ω	μA	V				
CMZ5339BQ	5.320	5.6	5.880	220	1.0	400	1.0	10	2.0	13.4	865	C5339B
CMZ5340BQ	5.700	6.0	6.300	200	1.0	300	1.0	10	3.0	12.7	790	C5340B
CMZ5342BQ	6.460	6.8	7.140	175	1.0	200	1.0	100	5.2	11.5	700	C5342B
CMZ5343BQ	7.125	7.5	7.875	175	1.5	200	1.0	100	5.7	10.7	630	C5343B
CMZ5344BQ	7.790	8.2	8.610	150	1.5	200	1.0	100	6.2	10.0	580	C5344B
CMZ5345BQ	8.265	8.7	9.135	150	2.0	200	1.0	100	6.6	7.5	545	C5345B
CMZ5346BQ	8.645	9.1	9.555	150	2.0	150	1.0	7.5	6.9	9.2	520	C5346B
CMZ5347BQ	9.500	10	10.50	125	2.0	125	1.0	5.0	7.6	8.6	475	C5347B
CMZ5348BQ	10.45	11	11.55	125	2.5	125	1.0	5.0	8.4	8.0	430	C5348B
CMZ5349BQ	11.40	12	12.60	100	2.5	125	1.0	2.0	9.1	7.5	395	C5349B
CMZ5350BQ	12.35	13	13.65	100	2.5	100	1.0	1.0	9.9	7.0	365	C5350B
CMZ5351BQ	13.30	14	14.70	100	2.5	75	1.0	1.0	10.6	6.7	340	C5351B
CMZ5352BQ	14.25	15	15.75	75	2.5	75	1.0	1.0	11.5	6.3	315	C5352B
CMZ5353BQ	15.20	16	16.80	75	2.5	75	1.0	1.0	12.2	6.0	295	C5353B
CMZ5354BQ	16.15	17	17.85	70	2.5	75	1.0	0.5	12.9	5.8	280	C5354B
CMZ5355BQ	17.10	18	18.90	65	2.5	75	1.0	0.5	13.7	5.5	264	C5355B
CMZ5356BQ	18.05	19	19.95	65	3.0	75	1.0	0.5	14.4	5.3	250	C5356B
CMZ5357BQ	19.00	20	21.00	65	3.0	75	1.0	0.5	15.2	5.1	237	C5357B
CMZ5358BQ	20.90	22	23.10	50	3.5	75	1.0	0.5	16.7	4.7	216	C5358B
CMZ5359BQ	22.80	24	25.20	50	3.5	100	1.0	0.5	18.2	4.4	198	C5359B
CMZ5360BQ	23.75	25	26.25	50	4.0	110	1.0	0.5	19.0	4.3	190	C5360B
CMZ5361BQ	25.65	27	28.35	50	5.0	120	1.0	0.5	20.6	4.1	176	C5361B

Note 2: Surge Current (I_r) - Maximum allowable peak, non-recurrent square wave current ($t_p=8.3\text{ms}$).

CMZ5339BQ THRU CMZ5373BQ

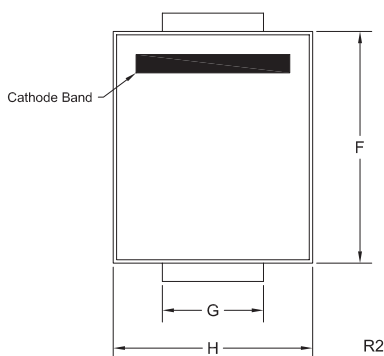
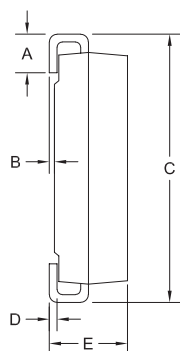
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX}$ @ $I_F=1.0\text{A}$ (for all types)

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
	V	V	V		mA	Ω	Ω	mA	μA				V
CMZ5362BQ	26.60	28	29.40	50	6.0	130	1.0	0.5	21.2	3.9	170	C5362B	
CMZ5363BQ	28.50	30	31.50	40	8.0	140	1.0	0.5	22.8	3.7	158	C5363B	
CMZ5364BQ	31.35	33	34.65	40	10	150	1.0	0.5	25.1	3.5	144	C5364B	
CMZ5365BQ	34.20	36	37.80	30	11	160	1.0	0.5	27.4	3.3	132	C5365B	
CMZ5366BQ	37.05	39	40.95	30	14	170	1.0	0.5	29.7	3.1	122	C5366B	
CMZ5367BQ	40.85	43	45.15	30	20	190	1.0	0.5	32.7	2.8	110	C5367B	
CMZ5368BQ	44.65	47	49.35	25	25	210	1.0	0.5	35.8	2.7	100	C5368B	
CMZ5369BQ	48.45	51	53.55	25	27	230	1.0	0.5	38.8	2.5	93.0	C5369B	
CMZ5370BQ	53.20	56	58.80	20	35	280	1.0	0.5	42.6	2.3	86.0	C5370B	
CMZ5371BQ	57.00	60	63.00	20	40	350	1.0	0.5	45.5	2.2	79.0	C5371B	
CMZ5372BQ	58.90	62	65.10	20	42	400	1.0	0.5	47.1	2.1	76.0	C5372B	
CMZ5373BQ	64.60	68	71.40	20	44	500	1.0	0.5	51.7	2.0	70.0	C5373B	

SMC CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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)

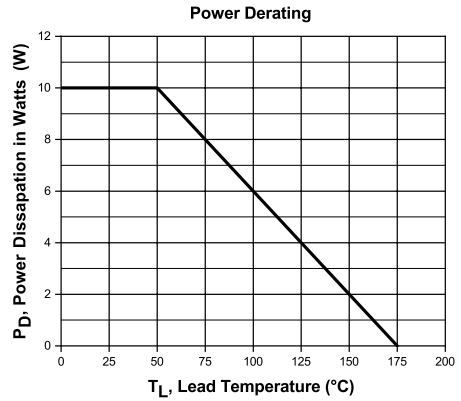
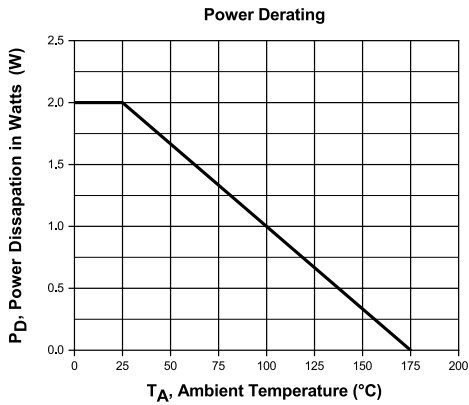
R1 (11-March 2025)

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TYPICAL ELECTRICAL CHARACTERISTICS



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

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

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- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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

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- 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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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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