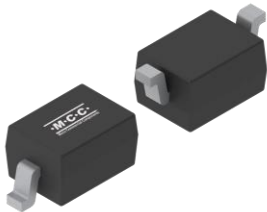


Features

- Standard Vz Tolerance is $\pm 5\%$
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes



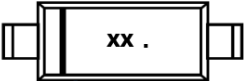
Mechanical Data

- Package: SOD-323 package name
- Moisture Sensitivity: Level 1, per J-STD-020
- Halogen Free. "Green" Device (Note1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish & RoHS Compliant
- Weight: 0.004 g (approximate)



SOD-323

Body Marking and Pin Layout

Body Marking	Internal structure
 XX: Device Marking Code¹ Bar: Cathode Pin Dot (optional): Manufacturing site marking ¹ Refer to the Marking Code for the specific device code.	 1 Cathode 2 Anode

Ordering Information

Product Name	Reel Size	Packing Type	Qty/Reel
MMXZ5223B THRU MMXZ5259B-TP	7"	Tape & Reel	3,000
MMXZ5223B THRU MMXZ5259B-13P	13"	Tape & Reel	10,000

For packaging details, visit our website at <https://www.mccsemi.com/Package/List>

Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation ^(Note2)	P_D	200	mW
Maximum Instantaneous Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Operating Junction Temperature Range	T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}\text{C}$

Thermal characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Thermal Resistance from Junction to Ambient ^(Note 2)	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$

Notes:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Mounted on PCB.

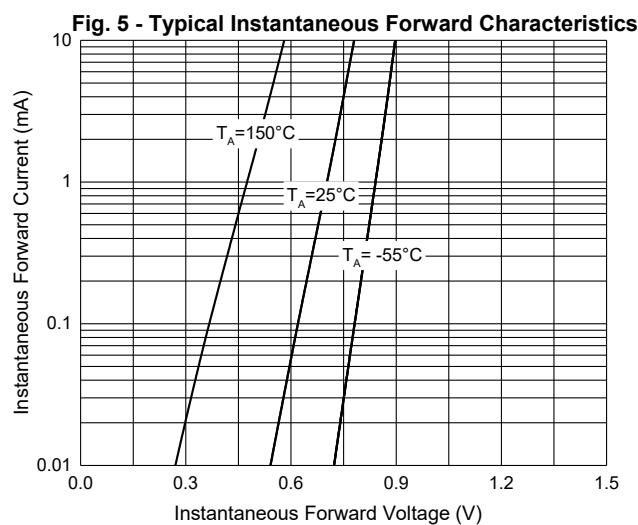
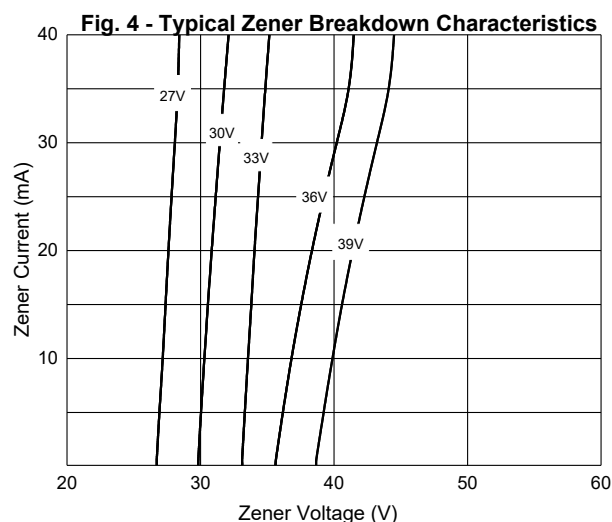
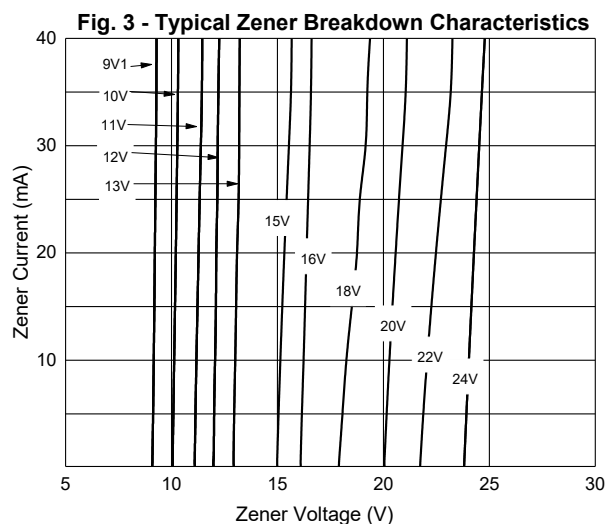
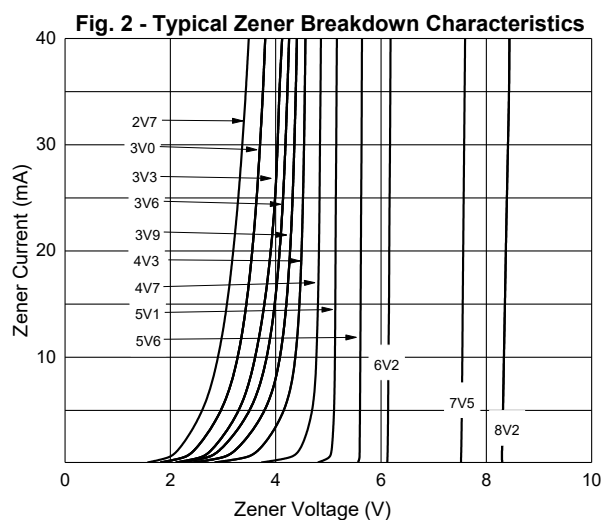
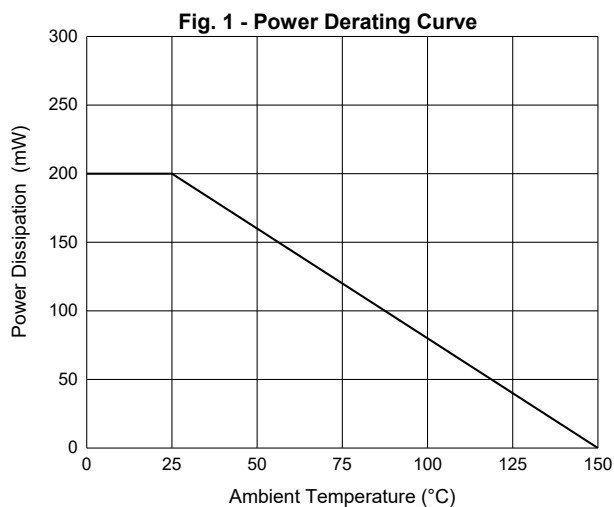
Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number	Zener Voltage ^(Note 3)			Test Current		Maximum Dynamic Impedance		Maximum Reverse Leakage Current		Typical Temperature Coefficient		Marking Code
	V _Z @I _{ZT}			I _{ZT}	I _{ZK}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _R	V _R	S _Z @I _{ZT}		
	Min(V)	Typ(V)	Max(V)	mA	mA	Ω	Ω	μA	V	Min (mV/°C)	Max (mV/°C)	
MMXZ5223B	2.57	2.7	2.84	20	0.25	30	1300	75	1	-3.5	0	C3
MMXZ5225B	2.85	3	3.15	20	0.25	29	1600	50	1	-3.5	0	C5
MMXZ5226B	3.14	3.3	3.47	20	0.25	28	1600	25	1	-3.5	0	G1
MMXZ5227B	3.42	3.6	3.78	20	0.25	24	1700	15	1	-3.5	0	G2
MMXZ5228B	3.71	3.9	4.10	20	0.25	23	1900	10	1	-3.5	0	G3
MMXZ5229B	4.09	4.3	4.52	20	0.25	22	2000	5	1	-3.5	0	G4
MMXZ5230B	4.47	4.7	4.94	20	0.25	19	1900	5	2	-3.5	0.2	G5
MMXZ5231B	4.85	5.1	5.36	20	0.25	17	1600	5	2	-2.7	1.2	E1
MMXZ5232B	5.32	5.6	5.88	20	0.25	11	1600	5	3	-2	2.5	E2
MMXZ5234B	5.89	6.2	6.51	20	0.25	7	1000	5	4	0.4	3.7	E4
MMXZ5235B	6.46	6.8	7.14	20	0.25	5	750	3	5	1.2	4.5	E5
MMXZ5236B	7.13	7.5	7.88	20	0.25	6	500	3	6	2.5	5.3	F1
MMXZ5237B	7.79	8.2	8.61	20	0.25	8	500	3	6.5	3.2	6.2	F2
MMXZ5239B	8.65	9.1	9.56	20	0.25	10	600	3	7	3.8	7	F4
MMXZ5240B	9.50	10	10.50	20	0.25	17	600	3	8	4.5	8	F5
MMXZ5241B	10.45	11	11.55	20	0.25	22	600	2	8.4	5.4	9	H1
MMXZ5242B	11.40	12	12.60	20	0.25	30	600	1	9.1	6	10	H2
MMXZ5243B	12.35	13	13.65	9.5	0.25	13	600	0.5	9.9	7	11	H3
MMXZ5245B	14.25	15	15.75	8.5	0.25	16	600	0.1	11	9.2	13	H5
MMXZ5246B	15.20	16	16.80	7.8	0.25	17	600	0.1	12	10.4	14	J1
MMXZ5248B	17.10	18	18.90	7	0.25	21	600	0.1	14	12.4	16	J3
MMXZ5250B	19.00	20	21.00	6.2	0.25	25	600	0.1	15	14.4	18	J5
MMXZ5251B	20.90	22	23.10	5.6	0.25	29	600	0.1	17	16.4	20	K1
MMXZ5252B	22.80	24	25.20	5.2	0.25	33	600	0.1	18	18.4	22	K2
MMXZ5254B	25.65	27	28.35	4.6	0.25	41	600	0.1	21	21.4	25.3	K4
MMXZ5255B	26.60	28	29.40	4.5	0.25	44	600	0.1	21	23.4	27.4	K5
MMXZ5256B	28.50	30	31.50	4.2	0.25	49	600	0.1	23	24.4	29.4	M1
MMXZ5257B	31.35	33	34.65	3.8	0.25	58	700	0.1	25	27.4	33.4	M2
MMXZ5258B	34.20	36	37.80	3.4	0.25	70	700	0.1	27	30.4	37.4	M3
MMXZ5259B	37.05	39	40.95	3.2	0.25	80	800	0.1	30	33.4	41.2	M4

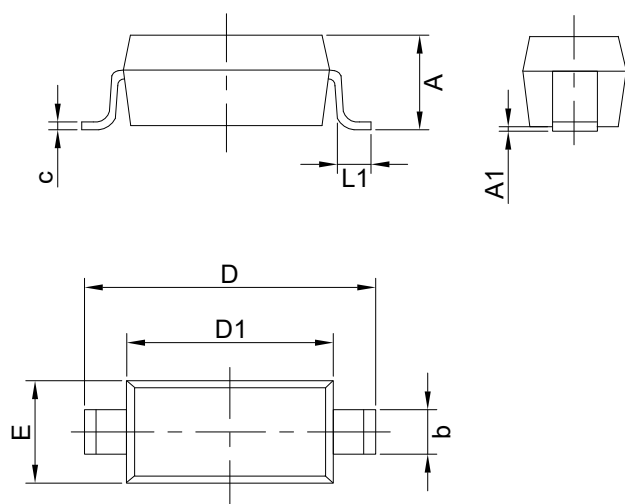
Notes:

3. Short-duration test pulses are used to minimize the self-heating effect.

Curve Characteristics



Package Outline

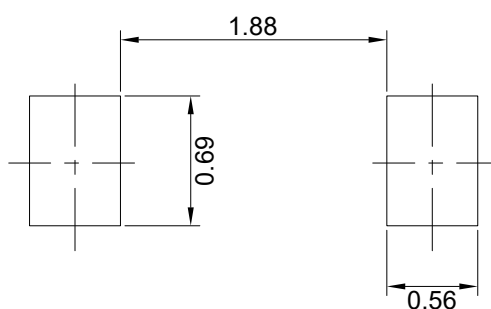


DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.045	0.80	1.15*	Note 1
A1	0.000	0.006	0.00	0.15	
b	0.010	0.016	0.25	0.40	
c	0.003	0.010	0.08	0.25	
D	0.090	0.107	2.30	2.70	
D1	0.063	0.071	1.60	1.80	
E	0.045	0.055	1.15	1.40	
L1	0.004	0.018	0.10	0.45	

Notes:

1. Dimension A for products from manufacturing site VN is controlled at max 1.10 mm.

Suggested Pad Layout (Unit:mm)



Notes:

1. The suggested land pattern dimensions have been provided for reference only.
2. For further information, please refer to document IPC-7351A.

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