



**THE DATASHEET OF  
MMBZ5259B\_R1\_00001**



# MMBZ5221B ~ MMBZ5267B Series

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 2.4 to 75 Volt    **POWER** 410 mWatt

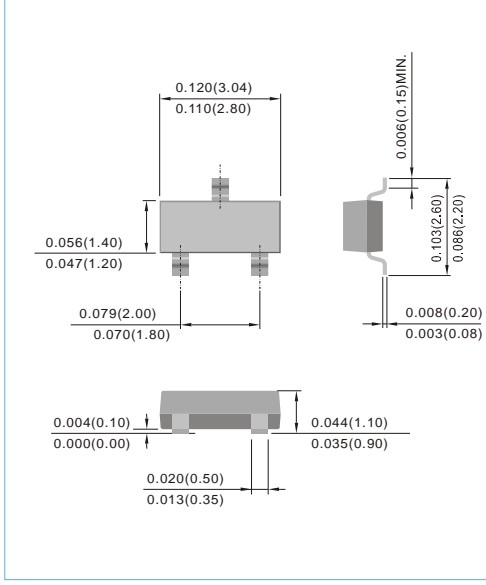
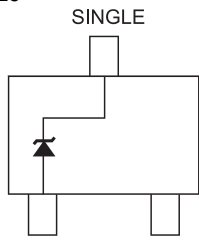
**SOT-23**    Unit : inch(mm)

### FEATURES

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4V~75V
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : SOT-23, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Apprx. Weight : 0.0084 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Maximum Power Dissipation (Notes A) at 25°C	P <sub>D</sub>	410	mW
Operating Junction and Storage Temperature Range	T <sub>J</sub>	-55 to +150	°C

**NOTES :**

A. Mounted on 100mm<sup>2</sup>(1mm thick) copper areas.

## MMBZ5221B ~ MMBZ5267B Series

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>zT</sub> @ I <sub>ZT</sub>		Z <sub>zK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
410 mWatts Zener Diodes										
MMBZ5221B	2.4	2.28	2.52	30	20	1200	0.25	100	1.0	C1
MMBZ5222B	2.5	2.38	2.63	30	20	1250	0.25	100	1.0	C2
MMBZ5223B	2.7	2.57	2.84	30	20	1300	0.25	75	1.0	C3
MMBZ5224B	2.8	2.66	2.94	30	20	1400	0.25	75	1.0	C4
MMBZ5225B	3.0	2.85	3.15	30	20	1600	0.25	50	1.0	C5
MMBZ5226B	3.3	3.14	3.47	28	20	1600	0.25	25	1.0	D1
MMBZ5227B	3.6	3.42	3.78	24	20	1700	0.25	15	1.0	D2
MMBZ5228B	3.9	3.71	4.10	23	20	1900	0.25	10	1.0	D3
MMBZ5229B	4.3	4.09	4.52	22	20	2000	0.25	5.0	1.0	D4
MMBZ5230B	4.7	4.47	4.94	19	20	1900	0.25	5.0	2.0	D5
MMBZ5231B	5.1	4.85	5.36	17	20	1600	0.25	5.0	2.0	E1
MMBZ5232B	5.6	5.32	5.88	11	20	1600	0.25	5.0	3.0	E2
MMBZ5233B	6.0	5.70	6.30	7.0	20	1600	0.25	5.0	3.5	E3
MMBZ5234B	6.2	5.89	6.51	7	20	1000	0.25	5.0	4.0	E4
MMBZ5235B	6.8	6.46	7.14	5	20	750	0.25	3.0	5.0	E5
MMBZ5236B	7.5	7.13	7.88	6	20	500	0.25	3.0	6.0	F1
MMBZ5237B	8.2	7.79	8.61	8	20	500	0.25	3.0	6.0	F2
MMBZ5238B	8.7	8.27	9.14	8	20	600	0.25	3.0	6.5	F3
MMBZ5239B	9.1	8.65	9.56	10	20	600	0.25	3.0	6.5	F4
MMBZ5240B	10	9.50	10.50	17	20	600	0.25	3.0	8.0	F5
MMBZ5241B	11	10.45	11.55	22	20	600	0.25	3.0	8.4	H1
MMBZ5242B	12	11.40	12.60	30	20	600	0.25	2.0	9.1	H2
MMBZ5243B	13	12.35	13.65	13	9.5	600	0.25	1.0	9.9	H3
MMBZ5244B	14	13.30	14.70	15	9.0	600	0.25	0.1	10.5	H4
MMBZ5245B	15	14.25	15.75	16	8.5	600	0.25	0.5	11	H5
MMBZ5246B	16	15.20	16.80	17	7.8	600	0.25	0.1	12	J1
MMBZ5247B	17	16.15	17.85	19	7.5	600	0.25	0.1	13	J2
MMBZ5248B	18	17.10	18.90	21	7.0	600	0.25	0.1	14	J3
MMBZ5249B	19	18.05	19.95	23	6.6	600	0.25	0.1	14	J4
MMBZ5250B	20	19.00	21.00	25	6.2	600	0.25	0.1	15	J5
MMBZ5251B	22	20.90	23.10	29	5.6	600	0.25	0.1	17	K1
MMBZ5252B	24	22.80	25.20	33	5.2	600	0.25	0.1	18	K2
MMBZ5253B	25	23.75	26.25	35	5.0	600	0.25	0.1	19	K3
MMBZ5254B	27	25.65	28.35	41	5.0	600	0.25	0.1	21	K4
MMBZ5255B	28	26.60	29.40	44	4.5	600	0.25	0.1	21	K5
MMBZ5256B	30	28.50	31.50	49	4.2	600	0.25	0.1	23	M1
MMBZ5257B	33	31.35	34.65	58	3.8	700	0.25	0.1	25	M2
MMBZ5258B	36	34.20	37.80	70	3.4	700	0.25	0.1	27	M3
MMBZ5259B	39	37.05	40.95	80	3.2	800	0.25	0.1	30	M4
MMBZ5260B	43	40.85	45.15	93	3.0	900	0.25	0.1	33	M5
MMBZ5261B	47	44.65	49.35	105	2.7	1000	0.25	0.1	36	N1
MMBZ5262B	51	48.45	53.55	125	2.5	1100	0.25	0.1	39	N2

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Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
MMBZ5263B	56	53.2	58.8	150	2.2	1300	0.25	0.1	43	N3
MMBZ5264B	60	57	63	170	2.1	1400	0.25	0.1	46	N4
MMBZ5265B	62	58.9	65.1	185	2	1500	0.25	0.1	47	N5
MMBZ5266B	68	64.6	71.4	230	1.8	1600	0.25	0.1	52	P1
MMBZ5267B	75	71.25	78.75	270	1.7	1400	0.25	0.1	56	P2

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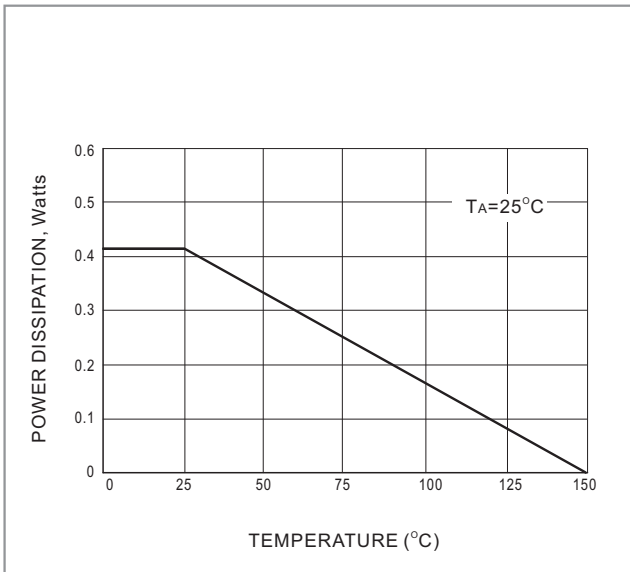


Fig.1 STEADY STATE POWER DERATING

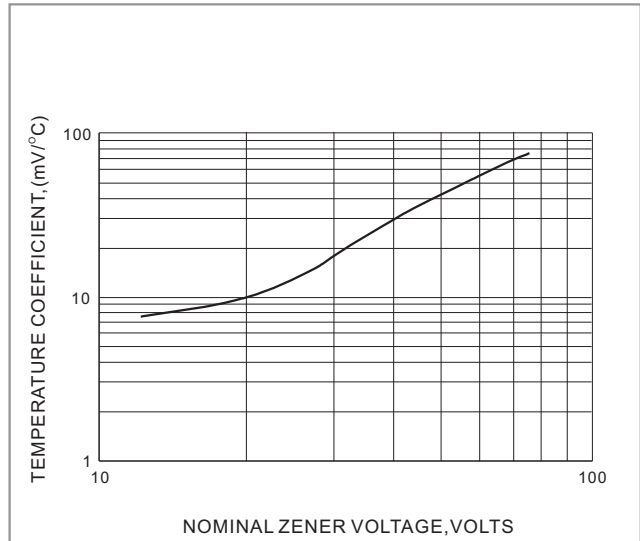


Fig.2 TEMPERATURE COEFFICIENTS

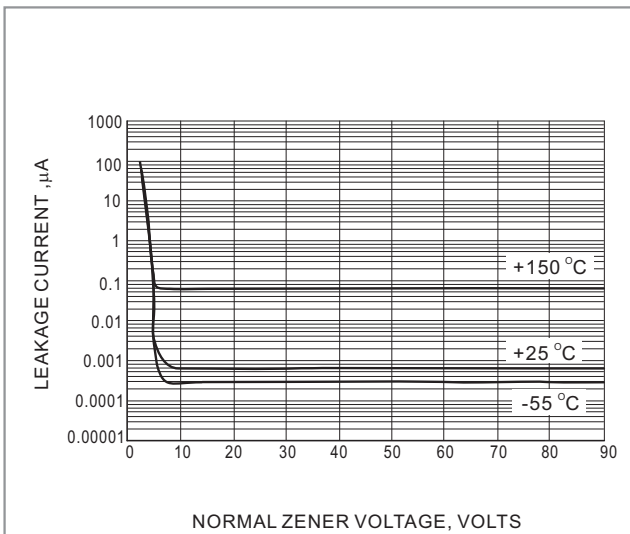


Fig.3 TYPICAL LEAKAGE CURRENT

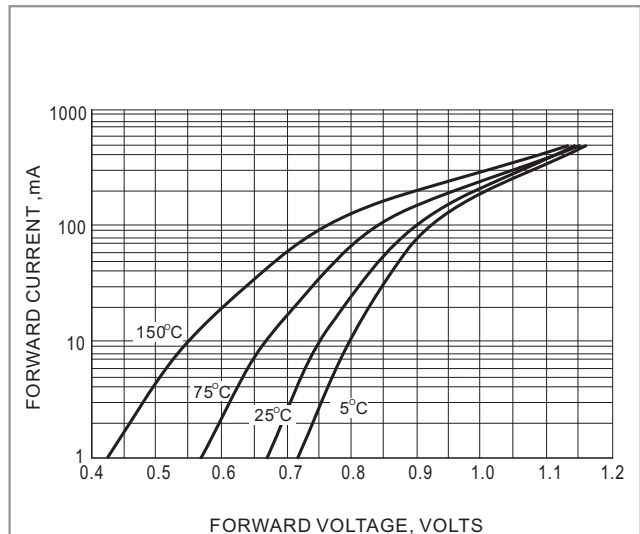


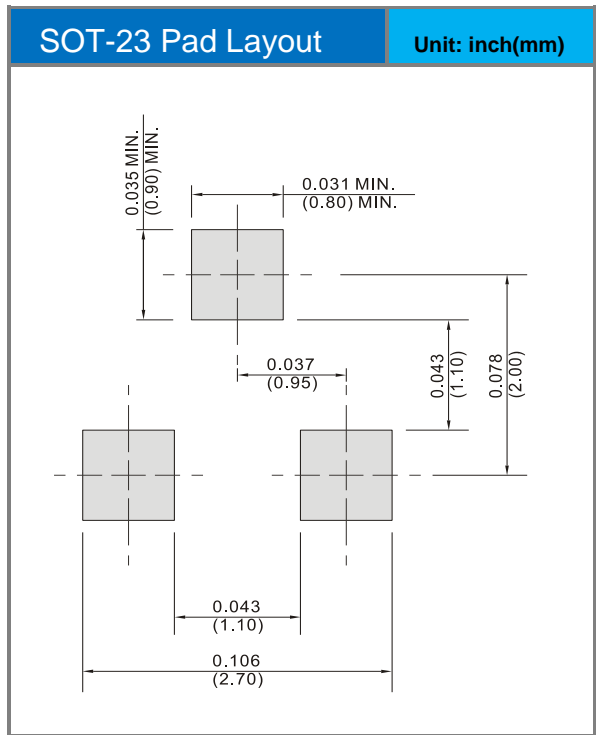
Fig.4 TYPICAL FORWARD VOLTAGE

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MMBZ52xxB	SOT-23	3K pcs / 7" reel	See Table

## Mounting Pad Layout



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