



**THE DATASHEET OF  
MMBZ5229B\_R1\_00001**



# MMBZ5221B ~ MMBZ5267B Series

## SURFACE MOUNT SILICON ZENER DIODES

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

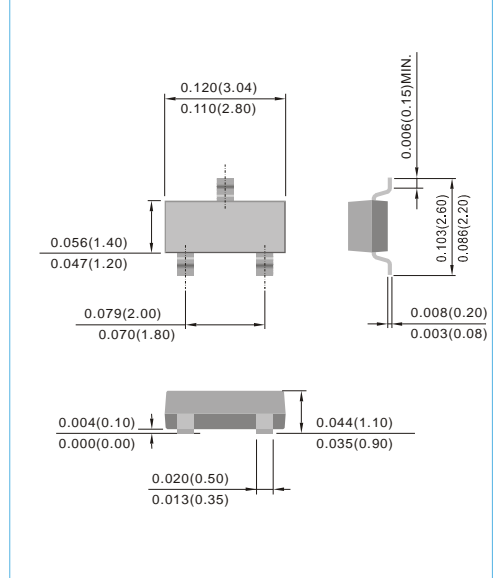
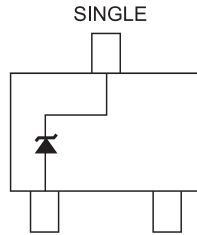
**SOT-23**    Unit : inch(mm)

### 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

## 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	
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

# MMBZ5221B ~ MMBZ5267B Series

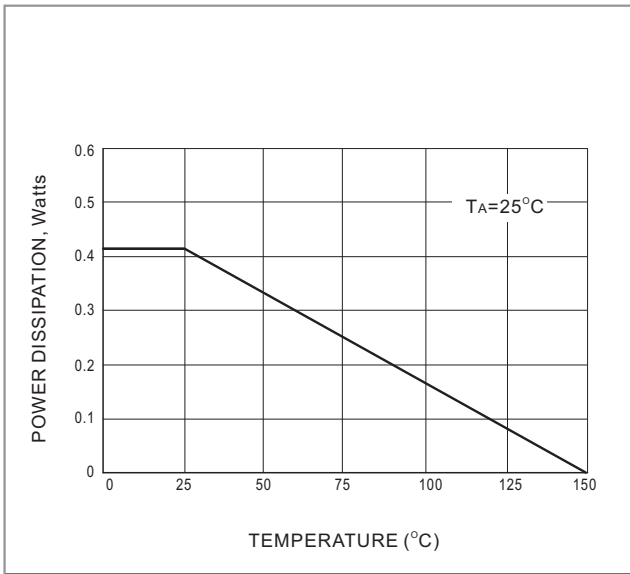


Fig.1 STEADY STATE POWER DERATING

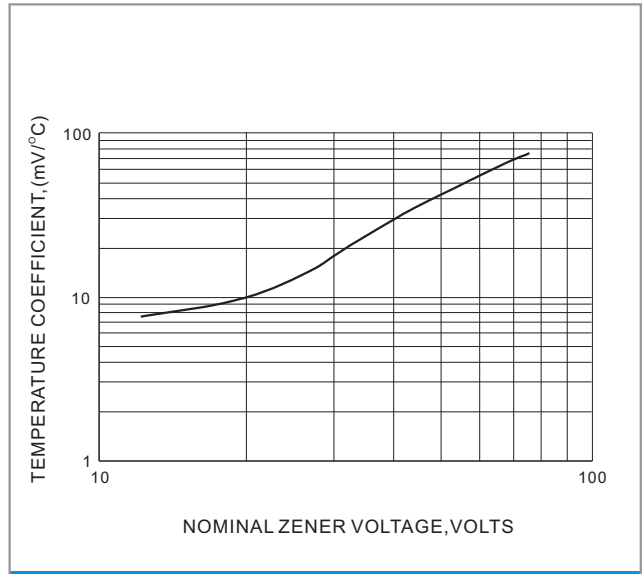


Fig.2 TEMPERATURE COEFFICIENTS

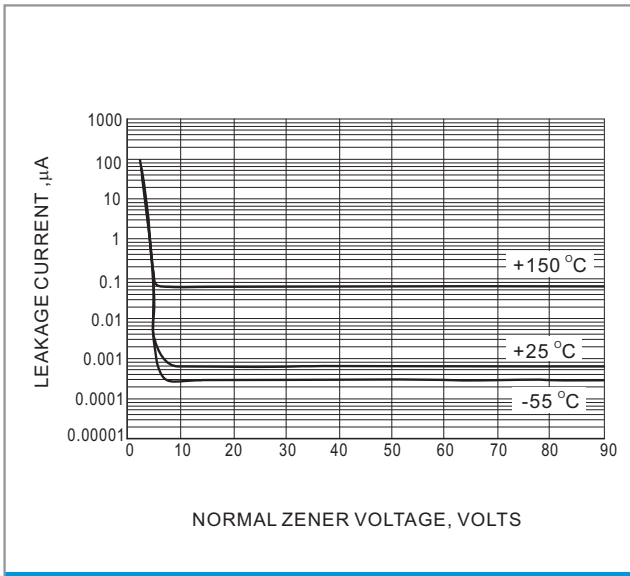


Fig.3 TYPICAL LEAKAGE CURRENT

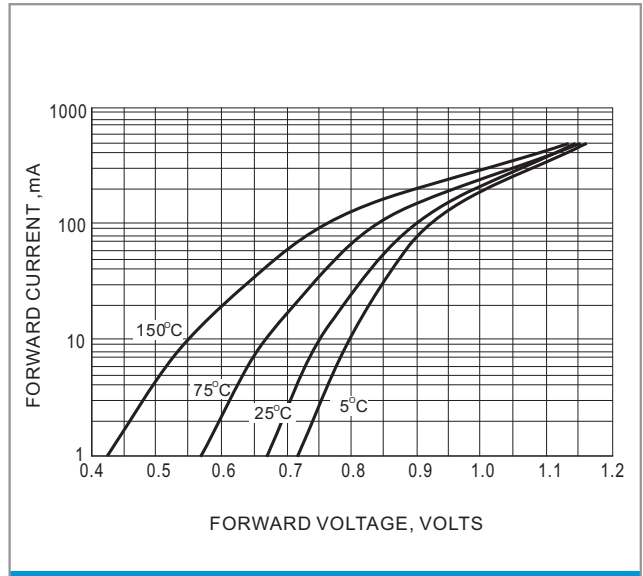


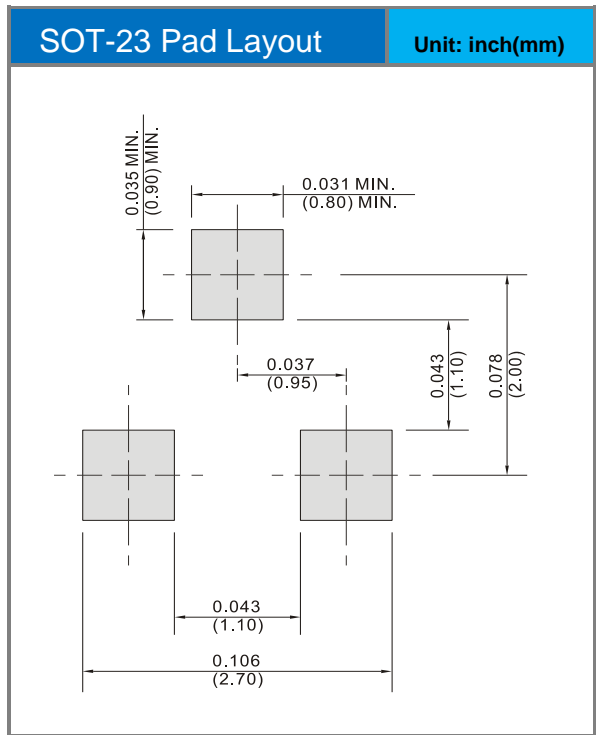
Fig.4 TYPICAL FORWARD VOLTAGE

# MMBZ5221B ~ MMBZ5267B Series

## Product and Packing Information

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

## Mounting Pad Layout



## MMBZ5221B ~ MMBZ5267B Series



---

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  View [MMBZ5229B\\_R1\\_00001](#) on WIN SOURCE
-  [Panjit](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management