



MMBZ5228B-AU~MMBZ5262B-AU

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 2.4 to 51 Volt **POWER** 410 mWatt

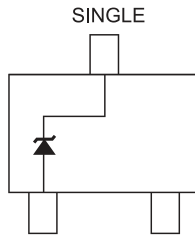
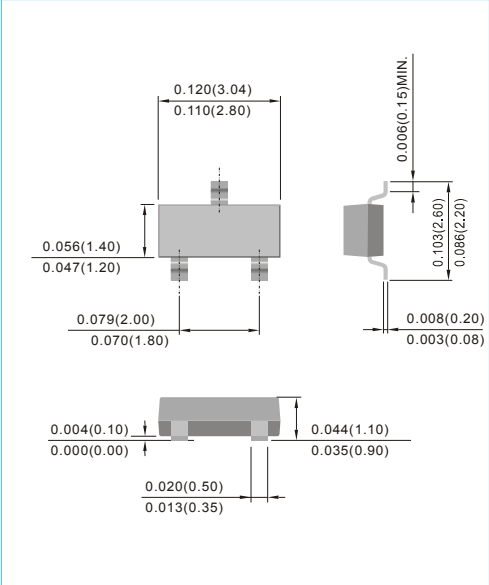
SOT-23 Unit : inch(mm)

FEATURES

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4V~51V
- Ideally Suited for Automated Assembly Processes
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Apprx. Weight: 0.0003 ounce, 0.0084 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Maximum Power Dissipation (Notes A) at 25°C	P _D	410	mW
Operating Junction and Storage Temperature Range	T _J	-55 to +150	°C

NOTES:

A. Mounted on 100mm²(1mm thick) copper areas.



MMBZ5228B-AU~MMBZ5262B-AU

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V _Z @ I _{ZT}			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
MMBZ5228B-AU	3.9	3.71	4.10	23	20	1900	0.25	10	1.0	D3
MMBZ5230B-AU	4.7	4.47	4.94	19	20	1900	0.25	5.0	2.0	D5
MMBZ5231B-AU	5.1	4.85	5.36	17	20	1600	0.25	5.0	2.0	E1
MMBZ5232B-AU	5.6	5.32	5.88	11	20	1600	0.25	5.0	3.0	E2
MMBZ5233B-AU	6.0	5.70	6.30	7.0	20	1600	0.25	5.0	3.5	E3
MMBZ5234B-AU	6.2	5.89	6.51	7	20	1000	0.25	5.0	4.0	E4
MMBZ5235B-AU	6.8	6.46	7.14	5	20	750	0.25	3.0	5.0	E5
MMBZ5236B-AU	7.5	7.13	7.88	6	20	500	0.25	3.0	6.0	F1
MMBZ5237B-AU	8.2	7.79	8.61	8	20	500	0.25	3.0	6.0	F2
MMBZ5238B-AU	8.7	8.27	9.14	8	20	600	0.25	3.0	6.5	F3
MMBZ5239B-AU	9.1	8.65	9.56	10	20	600	0.25	3.0	6.5	F4
MMBZ5240B-AU	10	9.50	10.50	17	20	600	0.25	3.0	8.0	F5
MMBZ5241B-AU	11	10.45	11.55	22	20	600	0.25	3.0	8.4	H1
MMBZ5242B-AU	12	11.40	12.60	30	20	600	0.25	2.0	9.1	H2
MMBZ5243B-AU	13	12.35	13.65	13	9.5	600	0.25	1.0	9.9	H3
MMBZ5244B-AU	14	13.30	14.70	15	9.0	600	0.25	0.1	10.5	H4
MMBZ5245B-AU	15	14.25	15.75	16	8.5	600	0.25	0.5	11	H5
MMBZ5246B-AU	16	15.20	16.80	17	7.8	600	0.25	0.1	12	J1
MMBZ5247B-AU	17	16.15	17.85	19	7.5	600	0.25	0.1	13	J2
MMBZ5248B-AU	18	17.10	18.90	21	7.0	600	0.25	0.1	14	J3
MMBZ5250B-AU	20	19.00	21.00	25	6.2	600	0.25	0.1	15	J5
MMBZ5251B-AU	22	20.90	23.10	29	5.6	600	0.25	0.1	17	K1
MMBZ5252B-AU	24	22.80	25.20	33	5.2	600	0.25	0.1	18	K2
MMBZ5254B-AU	27	25.65	28.35	41	5.0	600	0.25	0.1	21	K4
MMBZ5255B-AU	28	26.60	29.40	44	4.5	600	0.25	0.1	21	K5
MMBZ5256B-AU	30	28.50	31.50	49	4.2	600	0.25	0.1	23	M1
MMBZ5257B-AU	33	31.35	34.65	58	3.8	700	0.25	0.1	25	M2
MMBZ5258B-AU	36	34.20	37.80	70	3.4	700	0.25	0.1	27	M3
MMBZ5259B-AU	39	37.05	40.95	80	3.2	800	0.25	0.1	30	M4
MMBZ5260B-AU	43	40.85	45.15	93	3.0	900	0.25	0.1	33	M5
MMBZ5261B-AU	47	44.65	49.35	105	2.7	1000	0.25	0.1	36	N1
MMBZ5262B-AU	51	48.45	53.55	125	2.5	1100	0.25	0.1	39	N2



MMBZ5228B-AU~MMBZ5262B-AU

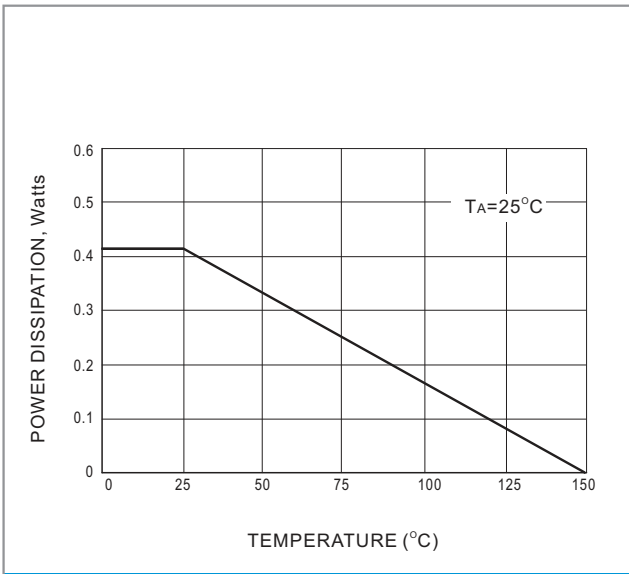


Fig.1 STEADY STATE POWER DERATING

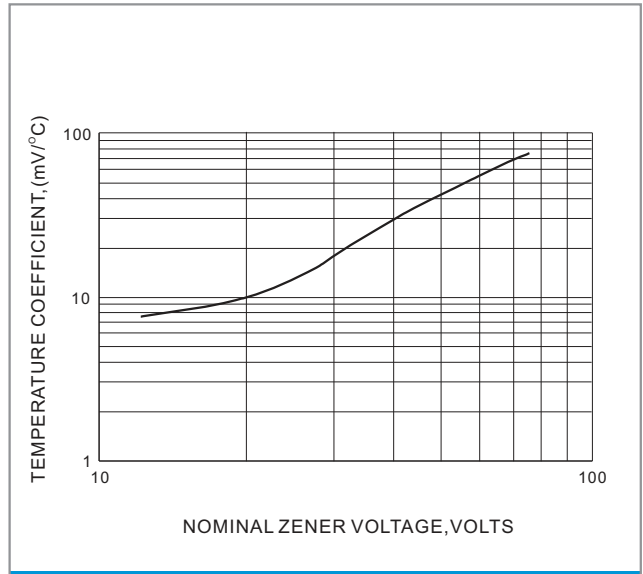


Fig.2 TEMPERATURE COEFFICIENTS

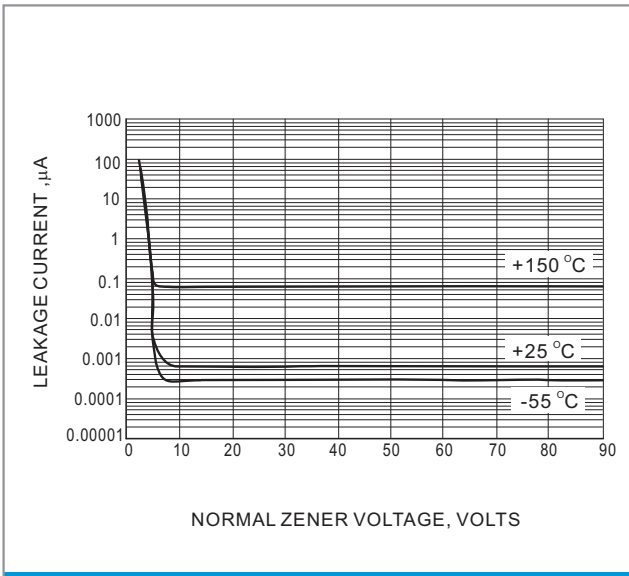


Fig.3 TYPICAL LEAKAGE CURRENT

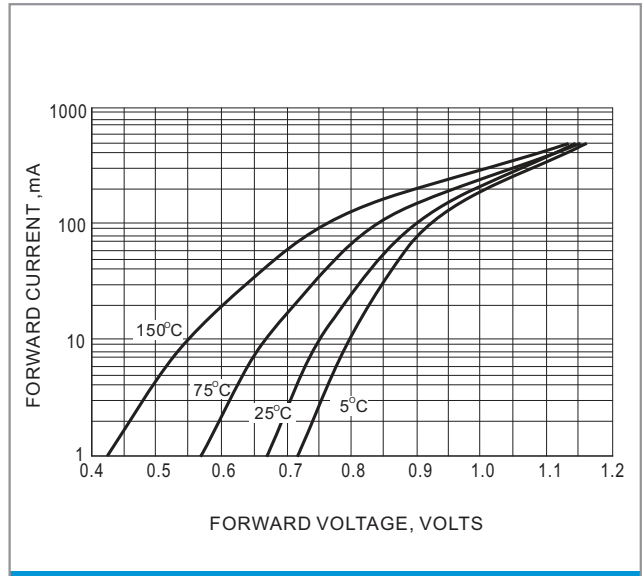


Fig.4 TYPICAL FORWARD VOLTAGE

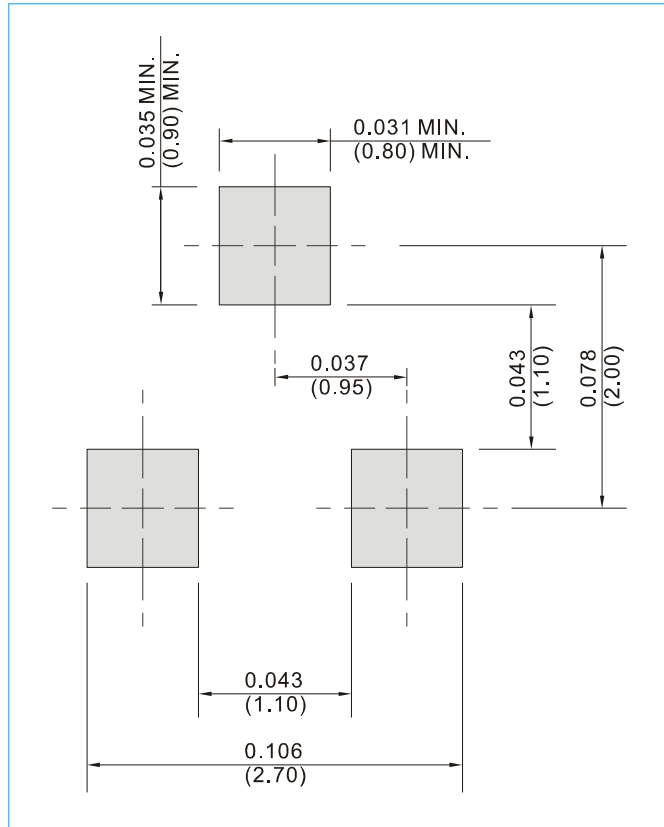


MMBZ5228B-AU~MMBZ5262B-AU

MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



MMBZ5228B-AU~MMBZ5262B-AU

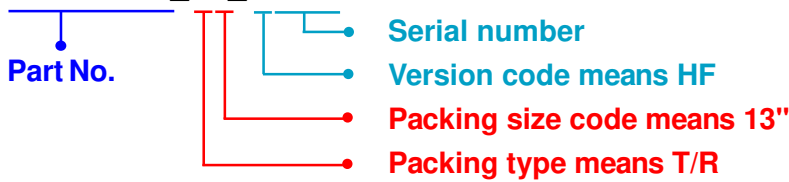
Part No_packing code_Version

MMBZ5228B-AU_R1_000A1

MMBZ5228B-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



MMBZ5228B-AU~MMBZ5262B-AU

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 relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, 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.