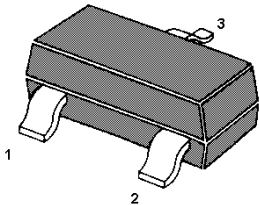
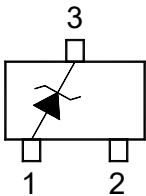


MMBZ52xxB Series-CH

Silicon Planar Zener Diodes

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF),
RoHS compliant



1. Anode 3. Cathode
SOT-23 Plastic Package

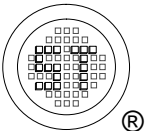
Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation ¹⁾	P_D	350	mW
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

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$

¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



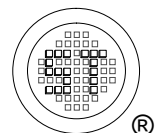
MMBZ52xxB Series-CH

Characteristics $T_a = 25^\circ\text{C}$ ($V_F = 0.9\text{ V Max. at } I_F = 10\text{ mA}$)

Table 1

Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Resistance				Reverse Current	
		V_{Znom}	V_{ZT}		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
		(V)	Min.(V)	Max.(V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
MMBZ5221B	Y0	2.4	2.28	2.52	20	30	20	1200	0.25	100	1
MMBZ5222B	AG	2.5	2.38	2.63	20	30	20	1250	0.25	100	1
MMBZ5223B	Z0	2.7	2.57	2.84	20	30	20	1300	0.25	75	1
MMBZ5225B	AA	3.0	2.85	3.15	20	30	20	1600	0.25	50	1
MMBZ5226B	AB	3.3	3.14	3.47	20	28	20	1600	0.25	25	1
MMBZ5227B	AC	3.6	3.42	3.78	20	24	20	1700	0.25	15	1
MMBZ5228B	AD	3.9	3.71	4.1	20	23	20	1900	0.25	10	1
MMBZ5229B	AE	4.3	4.09	4.52	20	22	20	2000	0.25	5	1
MMBZ5230B	AF	4.7	4.47	4.94	20	19	20	1900	0.25	5	2
MMBZ5231B	AH	5.1	4.85	5.36	20	17	20	1600	0.25	5	2
MMBZ5232B	AJ	5.6	5.32	5.88	20	11	20	1600	0.25	5	3
MMBZ5233B	AK	6.0	5.7	6.3	20	7	20	1600	0.25	5	3.5
MMBZ5234B	AM	6.2	5.89	6.51	20	7	20	1000	0.25	5	4
MMBZ5235B	AN	6.8	6.46	7.14	20	5	20	750	0.25	3	5
MMBZ5236B	AP	7.5	7.13	7.88	20	6	20	500	0.25	3	6
MMBZ5237B	AR	8.2	7.79	8.61	20	8	20	500	0.25	3	6.5
MMBZ5239B	AY	9.1	8.65	9.56	20	10	20	600	0.25	3	7
MMBZ5240B	AZ	10	9.5	10.5	20	17	20	600	0.25	3	8
MMBZ5241B	BA	11	10.45	11.55	20	22	20	600	0.25	2	8.4
MMBZ5242B	BB	12	11.4	12.6	20	30	20	600	0.25	1	9.1
MMBZ5243B	BC	13	12.35	13.65	9.5	13	9.5	600	0.25	0.5	9.9
MMBZ5245B	BE	15	14.25	15.75	8.5	16	8.5	600	0.25	0.1	11
MMBZ5246B	BF	16	15.2	16.8	7.8	17	7.8	600	0.25	0.1	12
MMBZ5247B	BH	17	16.15	17.85	7.4	19	7.4	600	0.25	0.1	13
MMBZ5248B	BJ	18	17.1	18.9	7	21	7	600	0.25	0.1	14
MMBZ5249B	BK	19	18.05	19.95	6.6	23	6.6	600	0.25	0.1	14
MMBZ5250B	BM	20	19	21	6.2	25	6.2	600	0.25	0.1	15
MMBZ5251B	BN	22	20.9	23.1	5.6	29	5.6	600	0.25	0.1	17
MMBZ5252B	BP	24	22.8	25.2	5.2	33	5.2	600	0.25	0.1	18
MMBZ5253B	BR	25	23.75	26.25	5	35	5	600	0.25	0.1	19
MMBZ5254B	BX	27	25.65	28.35	4.6	41	4.6	600	0.25	0.1	21
MMBZ5255B	AQ	28	26.6	29.4	4.5	44	4.5	600	0.25	0.1	21
MMBZ5256B	BZ	30	28.5	31.5	4.2	49	4.2	600	0.25	0.1	23
MMBZ5257B	CA	33	31.35	34.65	3.8	58	3.8	700	0.25	0.1	25
MMBZ5258B	CB	36	34.2	37.8	3.4	70	3.4	700	0.25	0.1	27
MMBZ5259B	CC	39	37.05	40.95	3.2	80	3.2	800	0.25	0.1	30
MMBZ5260B	CD	43	40.85	45.15	3	93	3	800	0.25	0.1	33
MMBZ5261B	CE	47	44.65	49.35	2.7	105	2.7	1000	0.25	0.1	36
MMBZ5262B	CF	51	48.45	53.55	2.5	125	2.5	1100	0.25	0.1	39
MMBZ5263B	AS	56	53.20	58.8	2.2	150	2.2	1300	0.25	0.1	43
MMBZ5265B	AT	62	58.90	65.1	2	185	2	1400	0.25	0.1	47
MMBZ5266B	AU	68	64.60	71.4	1.8	230	1.8	1600	0.25	0.1	52
MMBZ5267B	AX	75	71.25	78.75	1.7	270	1.7	1700	0.25	0.1	56

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.



MMBZ52xxB Series-CH

Electrical Characteristic Curve

Fig 1. Power Derating Curve

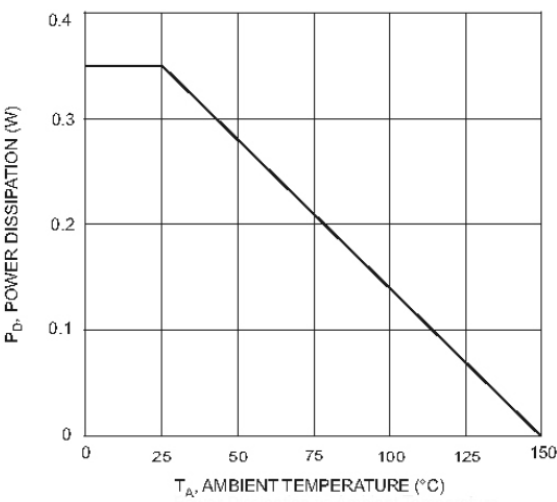


Fig 2. Zener Characteristics Curve

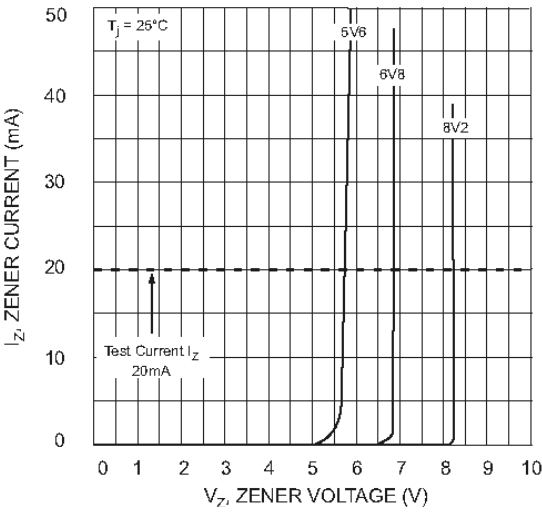
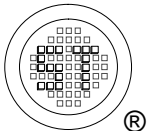
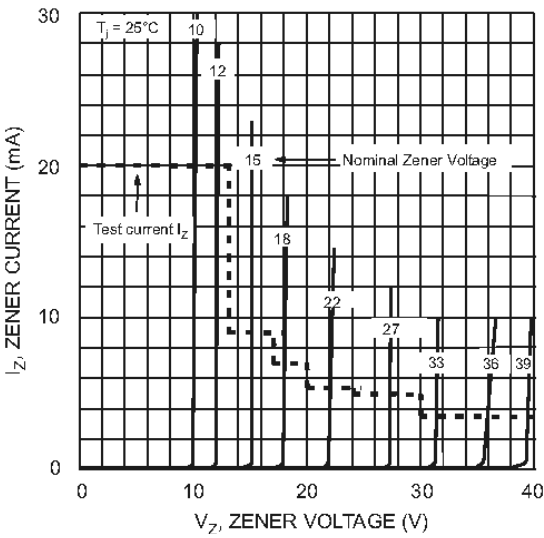


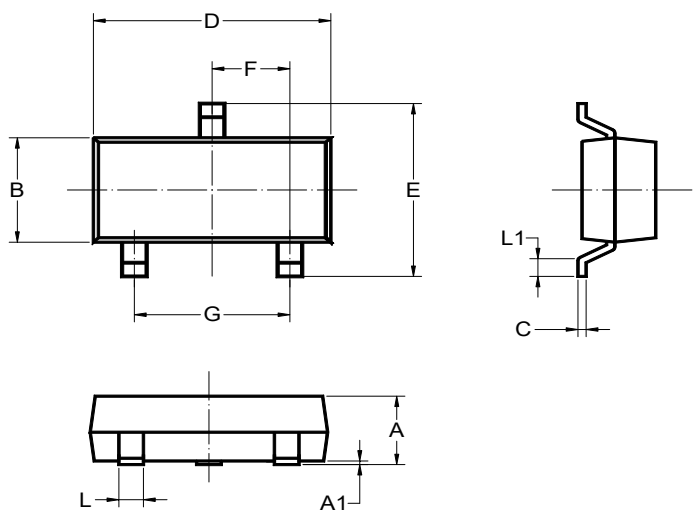
Fig 3. Zener Characteristics Curve



MMBZ52xxB Series-CH

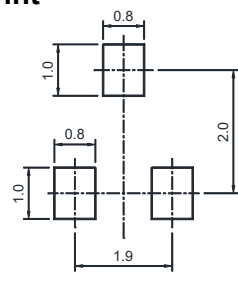
Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" XX " = Part No. (See Table 1 of Marking code)

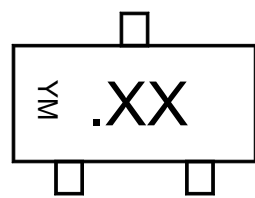
" . " = HAF (Halogen and Antimony Free)

" YM " = Date Code Marking

" Y " = Year

" M " = Month

Font type: Arial



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