MM3Z2B4GA~MM3ZB75GA

Design Viitor into your FUTURE

Silicon Planar Zener Diodes

Features

- AEC-Q101 Qualified
- Power Dissipation: 300 mW
- Zener voltage tolerance ± 2%
- Package designed for optimal automated board assembly
- Halogen and Antimony Free(HAF), RoHS compliant

Applications

- General regulation functions

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View

Simplified outline SOD-323 and symbol

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	300	mW
Operating Junction Temperature Range	T_j	- 55 to + 150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient [1)]	$R_{\theta JA}$	417	℃/W

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

Characteristics at T_a = 25℃ (V_F < 0.9 V at I_F = 10 mA) **Table 1**

Type	Marking Code	Zener Voltage Range [1]			Dynamic Impedance		Reverse Leakage Current	
		V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		(V)	(V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
MM3Z2B4GA	DN	2.4	2.352…2.448	5	100	5	120	1
MM3Z2B7GA	DP	2.7	2.646…2.754	5	110	5	120	1
MM3Z3B0GA	DR	3.0	2.94…3.06	5	120	5	50	1
MM3Z3B3GA	DX	3.3	3.234…3.366	5	130	5	20	1
MM3Z3B6GA	DY	3.6	3.528…3.672	5	130	5	10	1
MM3Z3B9GA	DZ	3.9	3.822…3.978	5	130	5	5	1
MM3Z4B3GA	Z0	4.3	4.214…4.386	5	130	5	5	1
MM3Z4B7GA	EB	4.7	4.606…4.794	5	130	5	2	1
MM3Z5B1GA	EC	5.1	4.998…5.202	5	130	5	2	1.5
MM3Z5B6GA	ED	5.6	5.488…5.712	5	80	5	1	2.5
MM3Z6B2GA	EE	6.2	6.076…6.324	5	50	5	1	3
MM3Z6B8GA	EF	6.8	6.664…6.936	5	30	5	0.5	3.5
MM3Z7B5GA	EH	7.5	7.35…7.65	5	30	5	0.5	4
MM3Z8B2GA	EJ	8.2	8.036…8.364	5	30	5	0.5	5
MM3Z9B1GA	EK	9.1	8.918…9.282	5	30	5	0.5	6
MM3ZB10GA	EM	10	9.8…10.2	5	30	5	0.1	7
MM3ZB11GA	EN	11	10.78…11.22	5	30	5	0.1	8
MM3ZB12GA	EP	12	11.76…12.24	5	35	5	0.1	9
MM3ZB13GA	ER	13	12.74…13.26	5	35	5	0.1	10
MM3ZB15GA	EX	15	14.7…15.3	5	40	5	0.1	11
MM3ZB16GA	EY	16	15.68…16.32	5	40	5	0.1	12
MM3ZB18GA	EZ	18	17.64…18.36	5	45	5	0.1	13
MM3ZB20GA	FA	20	19.6…20.4	5	50	5	0.1	15
MM3ZB22GA	FB	22	21.56…22.44	5	55	5	0.1	17
MM3ZB24GA	FC	24	23.52…24.48	5	60	5	0.1	19
MM3ZB27GA	FD	27	26.46…27.54	2	70	2	0.1	21
MM3ZB30GA	FE	30	29.4…30.6	2	80	2	0.1	23
MM3ZB33GA	FF	33	32.34…33.66	2	80	2	0.1	25
MM3ZB36GA	FH	36	35.28…36.72	2	90	2	0.1	27
MM3ZB39GA	FJ	39	38.22…39.78	2	100	2	0.1	30
MM3ZB43GA	XJ	43	42.14…43.86	2	130	2	0.1	33
MM3ZB47GA	XK	47	46.06…47.94	2	150	2	0.1	36
MM3ZB51GA	XM	51	49.98…52.02	2	180	2	0.1	39
MM3ZB56GA	XN	56	54.88…57.12	2	200	2	0.1	43
MM3ZB62GA	XP	62	60.76…63.24	2	215	2	0.1	47
MM3ZB68GA	XR	68	66.64…69.36	2	240	2	0.1	52
MM3ZB75GA	XX	75	73.5…76.5	2	265	2	0.1	56

[1] V_{ZT} is tested with pulses (20 ms).

Electrical Characteristics Curves

Fig. 1 Power Derating Curve

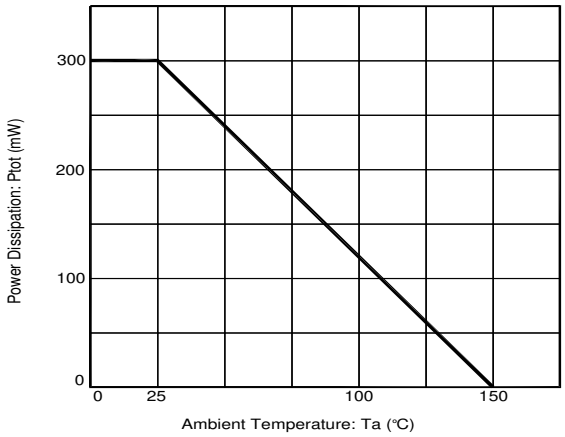


Fig. 2 Forward Characteristics Curve

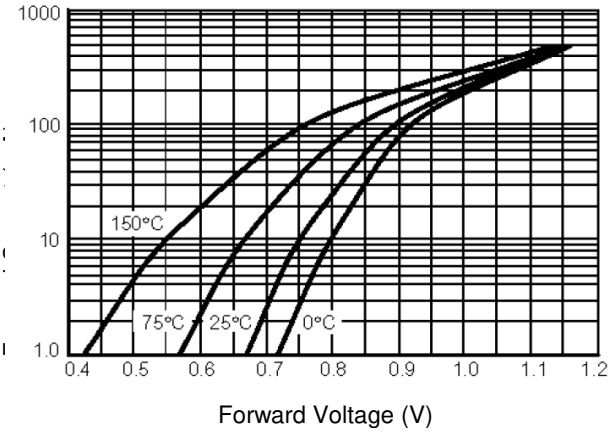


Fig. 3 Zener Characteristics Curve

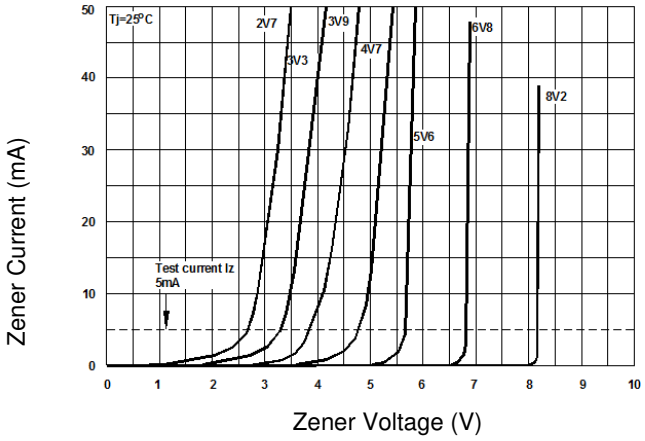
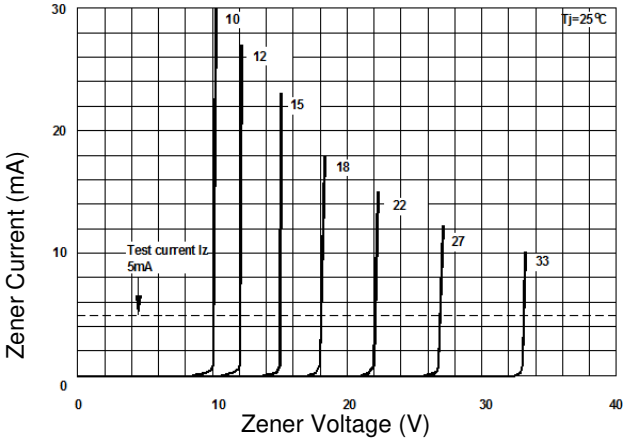
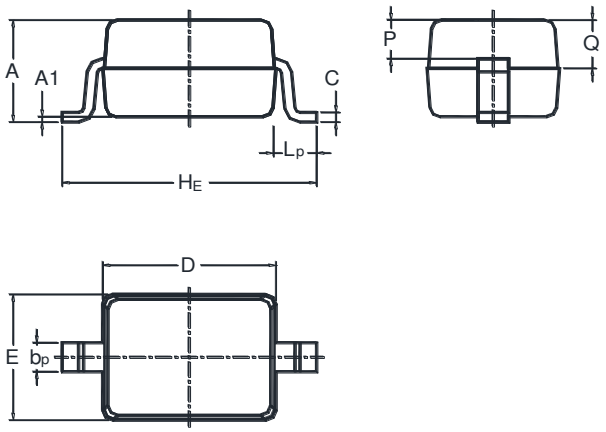


Fig. 4 Zener Characteristics Curve



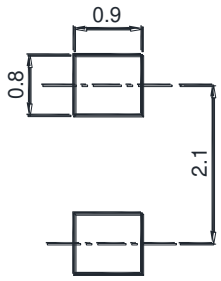
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**



UNIT	A	A_1	b_p	C	D	E	H_E	L_p	Q	P
mm	1.1 0.8	0.1 0	0.4 0.25	0.18 0.09	1.8 1.6	1.35 1.15	2.8 2.3	0.5 0.1	0.5 0.3	0.4 0.3

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323BL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" ** " = Part No. (See Table 1 of Marking Code)
" III " = Cathode line
" • " = HAF (Halogen and Antimony Free)
Font type: Arial