

## MMBZ5221B ~ MMBZ5261B

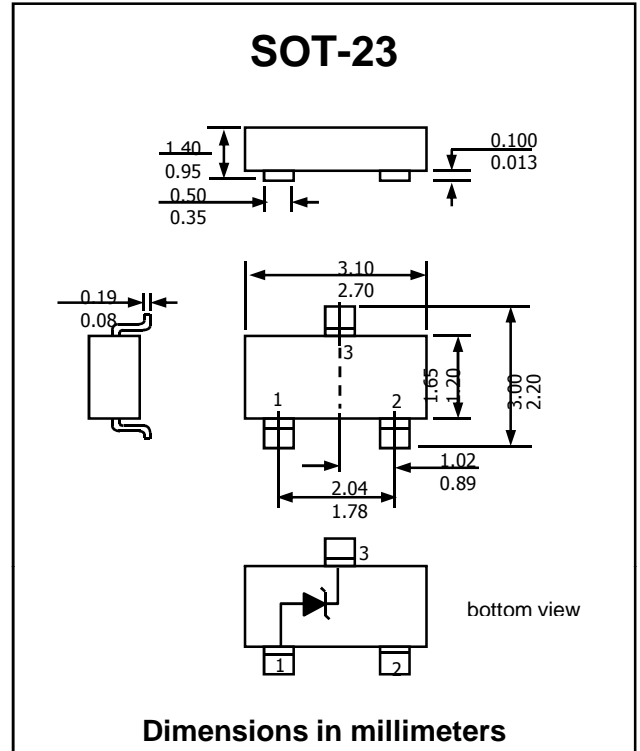
## SILICON PLANAR ZENER DIODE

### FEATURES :

- \* Zener Breakdown Voltage Range 2.4 V to 47 V
- \* Package Designed for Optimal Automated Board Assembly
- \* Small Package Size for High Density Applications
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : SOT-23 plastic Case



### Absolute Maximum Ratings (Ta = 25 °C)

RATING	SYMBOL	VALUE	UNIT
Power Dissipation	$P_D$	350	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150	°C

## ELECTRICAL CHARACTERISTICS (Ta=25 °C unless otherwise noted)

Type No.	Marking	Zener Voltage <sup>(1)</sup>			Test Current	Maximum Zener Impedance		Test Current	Maximum Reverse Leakage Current	
		V <sub>Z</sub> @ I <sub>ZT</sub> (V)			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>	
		Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
MMBZ5221B	Y0	2.28	2.4	2.52	20	30	1200	0.25	100	1.0
MMBZ5223B	Z0	2.57	2.7	2.84	20	30	1300	0.25	75	1.0
MMBZ5225B	AA	2.85	3.0	3.15	20	30	1600	0.25	50	1.0
MMBZ5226B	AB	3.14	3.3	3.47	20	28	1600	0.25	25	1.0
MMBZ5227B	AC	3.42	3.6	3.78	20	24	1700	0.25	15	1.0
MMBZ5228B	AD	3.71	3.9	4.10	20	23	1900	0.25	10	1.0
MMBZ5229B	AE	4.09	4.3	4.52	20	22	2000	0.25	5	1.0
MMBZ5230B	AF	4.47	4.7	4.94	20	19	1900	0.25	5	2.0
MMBZ5231B	AH	4.85	5.1	5.36	20	17	1600	0.25	5	2.0
MMBZ5232B	AJ	5.32	5.6	5.88	20	11	1600	0.25	5	3.0
MMBZ5233B	AK	5.70	6.0	6.30	20	7	1600	0.25	5	3.5
MMBZ5234B	AM	5.89	6.2	6.51	20	7	1000	0.25	5	4.0
MMBZ5235B	AN	6.46	6.8	7.14	20	5	750	0.25	3	5.0
MMBZ5236B	AP	7.13	7.5	7.88	20	6	500	0.25	3	6.0
MMBZ5237B	AR	7.79	8.2	8.61	20	8	500	0.25	3	6.5
MMBZ5239B	AY	8.65	9.1	9.56	20	10	600	0.25	3	7.0
MMBZ5240B	AZ	9.50	10	10.50	20	17	600	0.25	3	8.0
MMBZ5241B	BA	10.45	11	11.55	20	22	600	0.25	2	8.4
MMBZ5242B	BB	11.40	12	12.60	20	30	600	0.25	1	9.1
MMBZ5243B	BC	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MMBZ5245B	BE	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MMBZ5246B	BF	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MMBZ5247B	BH	16.15	17	17.85	7.4	19	600	0.25	0.1	13
MMBZ5248B	BJ	17.10	18	18.90	7.0	21	600	0.25	0.1	14
MMBZ5249B	BK	18.05	19	19.95	6.6	23	600	0.25	0.1	14
MMBZ5250B	BM	19.00	20	21.00	6.2	25	600	0.25	0.1	15
MMBZ5251B	BN	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MMBZ5252B	BP	22.80	24	25.20	5.2	33	600	0.25	0.1	18
MMBZ5253B	BR	23.75	25	26.25	5.0	35	600	0.25	0.1	19
MMBZ5254B	BX	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MMBZ5256B	BZ	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MMBZ5257B	CA	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MMBZ5258B	CB	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MMBZ5259B	CC	37.05	39	40.95	3.2	80	800	0.25	0.1	30
MMBZ5260B	CD	40.85	43	45.15	3.0	93	800	0.25	0.1	33
MMBZ5261B	CE	44.65	47	49.35	2.7	105	1000	0.25	0.1	36

Note :

- (1) Tested with pulses tp = 20 ms
- (2) Maximum V<sub>F</sub> = 0.9 V at I<sub>F</sub> = 10mA

RATINGS AND CHARACTERISTIC CURVES ( MMBZ5221B~MMBZ5261B )

FIG.1 - POWER DISSIPATION VS. AMBIENT TEMPERATURE

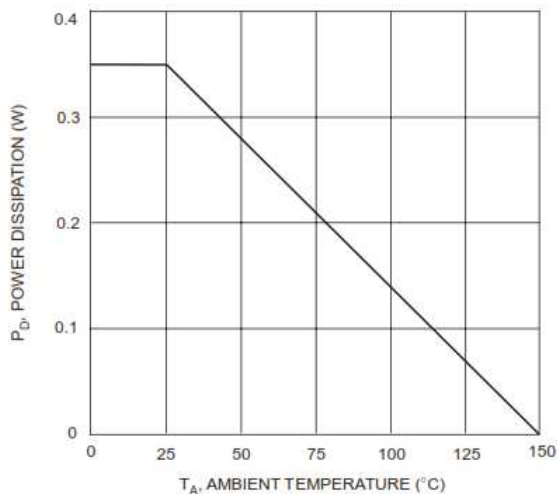


FIG.2 - ZENER BREAKDOWN CHARACTERISTICS

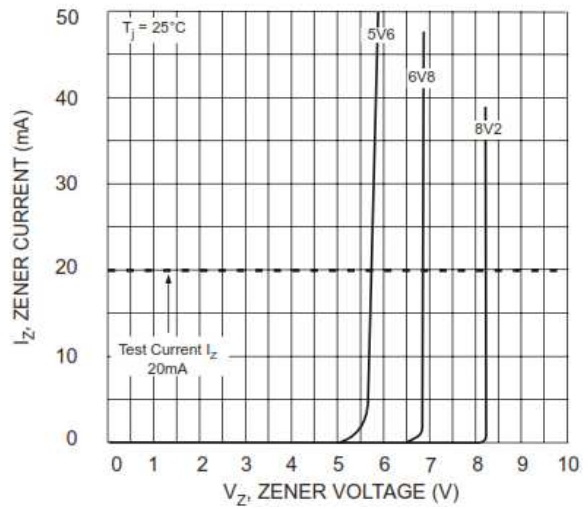


FIG.3 - ZENER VOLTAGE VS. ZENER IMPEDANCE

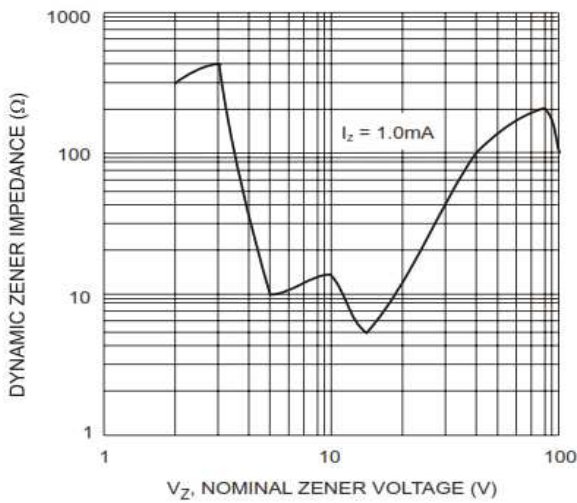


FIG.4 - ZENER BREAKDOWN CHARACTERISTICS

