

## Zeners

### MMBZ5221B - MMBZ5257B

Tolerance: B = 5%

#### Absolute Maximum Ratings\*

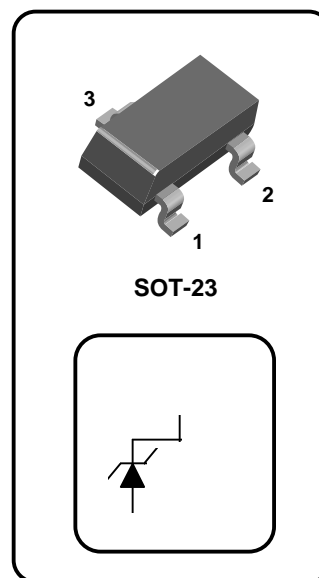
$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	350	mW
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	+ 150	$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of the diode may be impaired.

#### NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.



#### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Device	Mark	$V_Z$ (V)	$Z_Z$ ( $\Omega$ ) @ $I_Z$ (mA)	$Z_{ZK}$ ( $\Omega$ ) @ $I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ ) @ $V_R$ (V)
MMBZ 5221B	18A	2.4	30 20	1,200 0.25	100 1.0
MMBZ 5223B	18C	2.7	30 20	1,300 0.25	75 1.0
MMBZ 5226B	8A	3.3	28 20	1,600 0.25	25 1.0
MMBZ 5227B	8B	3.6	24 20	1,700 0.25	15 1.0
MMBZ 5228B	8C	3.9	23 20	1,900 0.25	10 1.0
MMBZ 5229B	8D	4.3	22 20	1,000 0.25	5.0 1.0
MMBZ 5230B	8E	4.7	19 20	1,900 0.25	5.0 2.0
MMBZ 5231B	8F	5.1	17 20	1,600 0.25	5.0 2.0
MMBZ 5232B	8G	5.6	11 20	1,600 0.25	5.0 3.0
MMBZ 5233B	8H	6.0	7.0 20	1,600 0.25	5.0 3.5
MMBZ 5234B	8J	6.2	7.0 20	1,000 0.25	5.0 4.0
MMBZ 5235B	8K	6.8	5.0 20	750 0.25	3.0 5.0
MMBZ 5236B	8L	7.5	6.0 20	500 0.25	3.0 6.0
MMBZ 5237B	8M	8.2	8.0 20	500 0.25	3.0 6.5
MMBZ 5238B	8N	8.7	8.0 20	600 0.25	3.0 6.5
MMBZ 5239B	8P	9.1	10 20	600 0.25	3.0 7.0
MMBZ 5240B	8Q	10	17 20	600 0.25	3.0 8.0
MMBZ 5241B	8R	11	22 20	600 0.25	2.0 8.4
MMBZ 5242B	8S	12	30 20	600 0.25	1.0 9.1

$V_F$  Forward Voltage = 0.9 V Maximum @  $I_F = 10$  mA for all MMBZ 5200 series

## Zeners (MMBZ5221B - MMBZ5257B)

(continued)

### Electrical Characteristics (continued) TA = 25°C unless otherwise noted

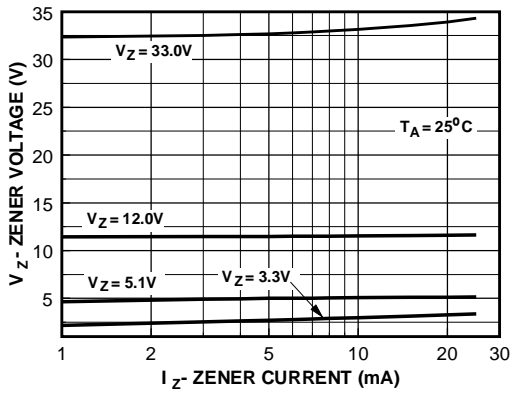
Device	Mark	V <sub>Z</sub> (V)	Z <sub>Z</sub> (Ω)	I <sub>Z</sub> (mA)	Z <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	I <sub>R</sub> (nA)	V <sub>R</sub> (V)
MMBZ 5243B	8T	13	13	9.5	600	0.25	500	9.9
MMBZ 5244B	8U	14	15	9.0	600	0.25	100	10
MMBZ 5245B	8V	15	16	8.5	600	0.25	100	11
MMBZ 5246B	8W	16	17	7.8	600	0.25	100	12
MMBZ 5247B	8X	17	19	7.4	600	0.25	100	13
MMBZ 5248B	8Y	18	21	7.0	600	0.25	100	14
MMBZ 5249B	8Z	19	23	6.6	600	0.25	100	14
MMBZ 5250B	81A	20	25	6.2	600	0.25	100	15
MMBZ 5251B	81B	22	29	5.6	600	0.25	100	17
MMBZ 5252B	81C	24	33	5.2	600	0.25	100	18
MMBZ 5253B	81D	25	35	5.0	600	0.25	100	19
MMBZ 5254B	81E	27	41	4.6	600	0.25	100	21
MMBZ 5255B	81F	28	44	4.5	600	0.25	100	21
MMBZ 5256B	81G	30	49	4.2	600	0.25	100	23
MMBZ 5257B	81H	33	58	3.8	700	0.25	100	25

V<sub>F</sub> Forward Voltage = 0.9 V Maximum @ I<sub>F</sub> = 10 mA for all MMBZ 5200 series

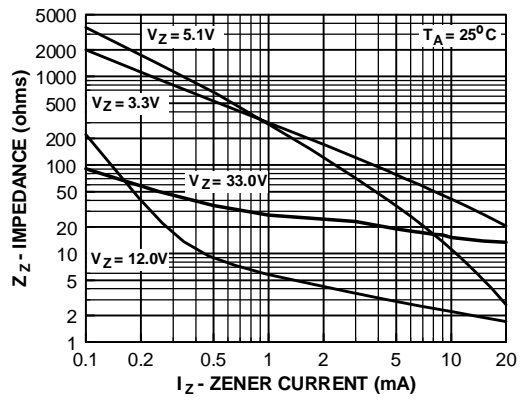
Zeners (MMBZ5221B - MMBZ5257B)

Typical Characteristics

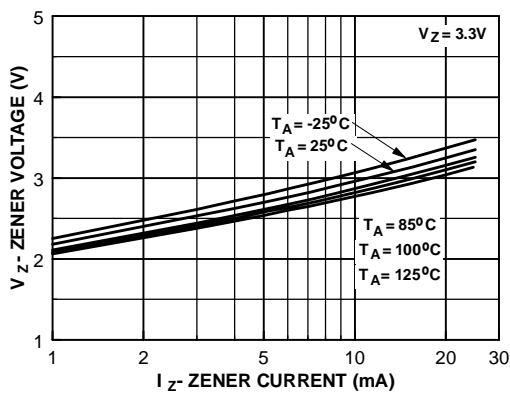
Zener Current vs. Zener Voltage



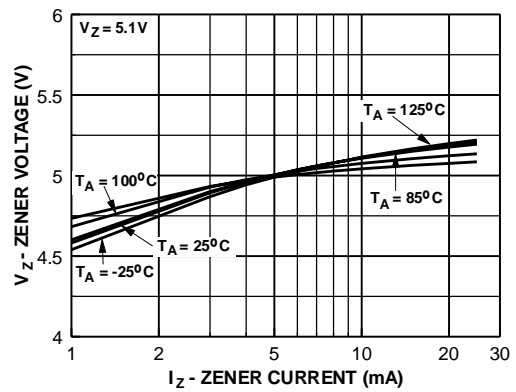
Zener Current vs. Zener Impedance



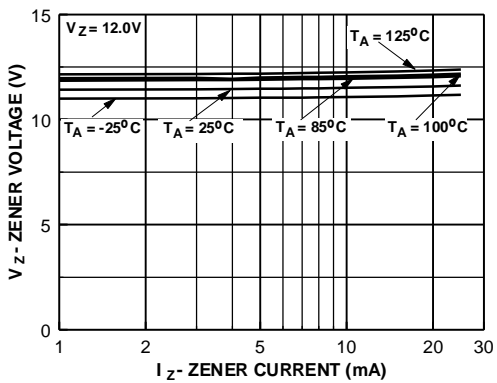
3.3 Zener Voltage vs. Temperature



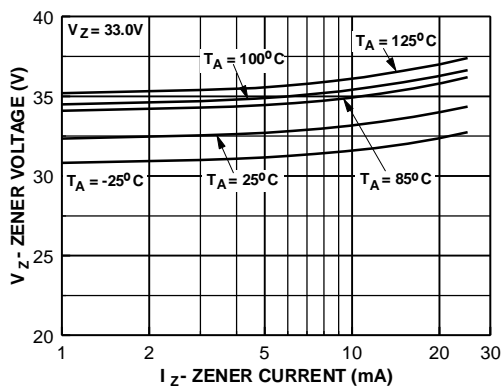
5.1 Zener Voltage vs. Temperature



12 Zener Voltage vs. Zener Temperature



33 Zener Voltage vs. Zener Temperature



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