

## Zeners

### MMBZ5221B-MMBZ5257B

Tolerance = 5%

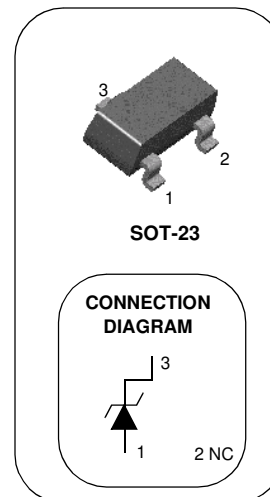
#### Absolute Maximum Ratings \* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	350	mW
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	+150	°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<sub>A</sub> = 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> (μA) @ V <sub>R</sub> (V)
MMBZ5221B	18A	2.4	30 20	1,200 0.25	100 1.0
MMBZ5223B	18C	2.7	30 20	1,300 0.25	75 1.0
MMBZ5226B	8A	3.3	28 20	1,600 0.25	25 1.0
MMBZ5227B	8B	3.6	24 20	1,700 0.25	15 1.0
MMBZ5228B	8C	3.9	23 20	1,900 0.25	10 1.0
MMBZ5229B	8D	4.3	22 20	1,000 0.25	5.0 1.0
MMBZ5230B	8E	4.7	19 20	1,900 0.25	5.0 2.0
MMBZ5231B	8F	5.1	17 20	1,600 0.25	5.0 2.0
MMBZ5232B	8G	5.6	11 20	1,600 0.25	5.0 3.0
MMBZ5233B	8H	6.0	7.0 20	1,600 0.25	5.0 3.5
MMBZ5234B	8J	6.2	7.0 20	1,000 0.25	5.0 4.0
MMBZ5235B	8K	6.8	5.0 20	750 0.25	3.0 5.0
MMBZ5236B	8L	7.5	6.0 20	500 0.25	3.0 6.0
MMBZ5237B	8M	8.2	8.0 20	500 0.25	3.0 6.5
MMBZ5238B	8N	8.7	8.0 20	600 0.25	3.0 6.5
MMBZ5239B	8P	9.1	10 20	600 0.25	3.0 7.0
MMBZ5240B	8Q	10	17 20	600 0.25	3.0 8.0
MMBZ5241B	8R	11	22 20	600 0.25	2.0 8.4
MMBZ5242B	8S	12	30 20	600 0.25	1.0 8.1
MMBZ5243B	8T	13	13 9.5	600 0.25	0.5 9.9
MMBZ5244B	8U	14	15 9.0	600 0.25	0.1 10
MMBZ5245B	8V	15	16 8.5	600 0.25	0.1 11
MMBZ5246B	8W	16	17 7.8	600 0.25	0.1 12
MMBZ5247B	8X	17	19 7.4	600 0.25	0.1 13

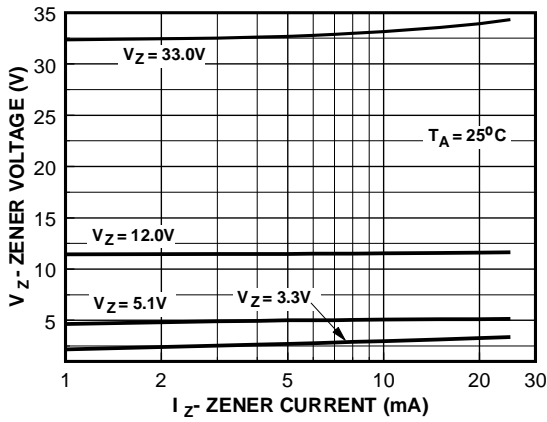
**V<sub>F</sub> Forward Voltage = 0.9V Maximum @ I<sub>F</sub> = 10mA for all MMBZ5200 series**

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

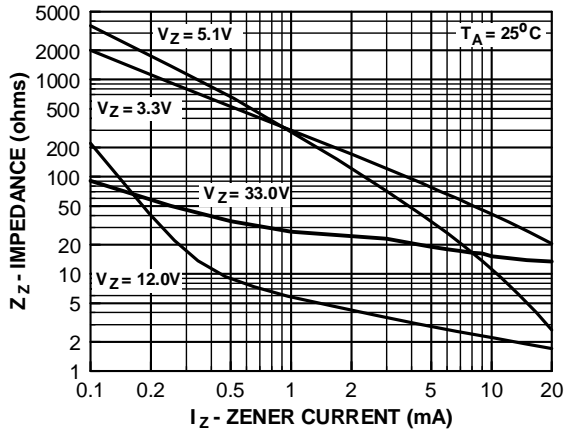
Device	Mark	$V_Z$ (V)	$Z_Z(\Omega)$ @ $I_Z$ (mA)		$Z_{ZK}(\Omega)$ @ $I_{ZK}$ (mA)		$I_R$ ( $\mu\text{A}$ ) @ $V_R$ (V)	
MMBZ5248B	8Y	18	21	7.0	600	0.25	0.1	14
MMBZ5249B	8Z	19	23	6.6	600	0.25	0.1	14
MMBZ5250B	81A	20	25	6.2	600	0.25	0.1	15
MMBZ5251B	81B	22	29	5.6	600	0.25	0.1	17
MMBZ5252B	81C	24	33	5.2	600	0.25	0.1	18
MMBZ5253B	81D	25	35	5.0	600	0.25	0.1	19
MMBZ5254B	81E	27	41	4.6	600	0.25	0.1	21
MMBZ5255B	81F	28	44	4.5	600	0.25	0.1	21
MMBZ5256B	81G	30	49	4.2	600	0.25	0.1	23
MMBZ5257B	81H	33	58	3.8	600	0.25	0.1	25

$V_F$  Forward Voltage = 0.9V Maximum @  $I_F = 10\text{mA}$  for all MMBZ5200 series

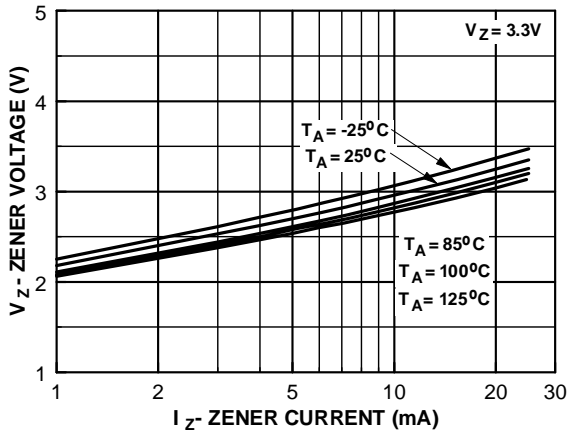
### Typical Characteristics



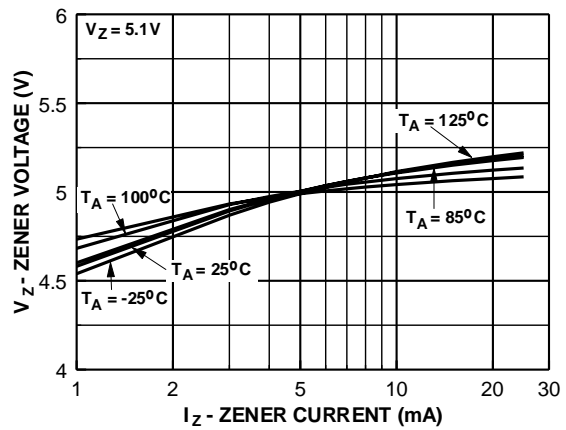
Zener Current vs. Zener Voltage



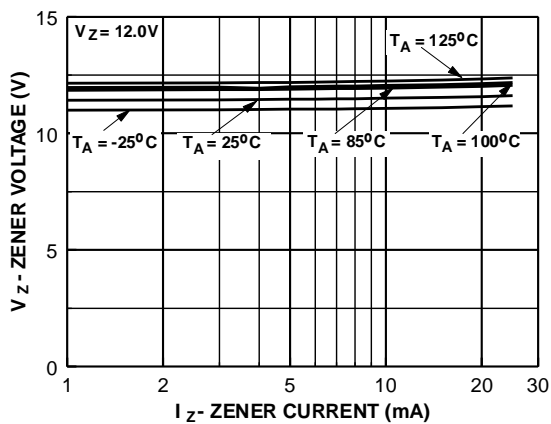
Zener Current vs. Zener Impedance



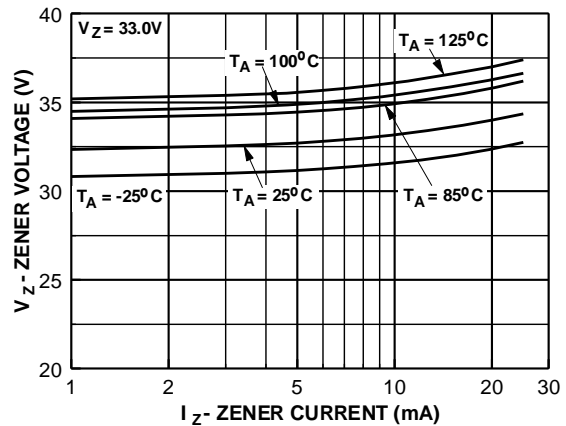
3.3 Zener Voltage vs. Temperature



5.1 Zener Voltage vs. Temperature



12 Zener Voltage vs. Zener Temperature



33 Zener Voltage vs. Zener Temperature

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