FAIRCHILD SEMICONDUCTOR®

February 2012

MMSZ5226B - MMSZ5257B
Zeners

Tolerance = 5%

SOD-123

Absolute Maximum Ratings * T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation @25°C	500	mW
$R_{\theta JA}$	Thermal Resistance, Juncion to Ambient **	340	°C/W
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperture	+150	°C

* These ratings are limiting values above which the serviceability of the diode may be impaired.
** FR-4 or FR-5 = 3.5 × 1.5 inches using minimumrecommended land pads.

Electrical Characteristics T_A = 25°C unless otherwise noted

Device	Mark	V_Z (V)			$Z_Z(\Omega)$ @ I_{ZK}(mA)		$Z_{ZK}(\Omega)$ @ I_{ZK}(mA)		$I_R(\mu A)$ @ V_R (V)	
		Min.	Typ.	Max.						
MMSZ5226B	D1	3.135	3.3	3.465	28	20	1,600	0.25	25	1.0
MMSZ5227B	D2	3.42	3.6	3.78	24	20	1,700	0.25	15	1.0
MMSZ5228B	D3	3.705	3.9	4.095	23	20	1,900	0.25	10	1.0
MMSZ5229B	D4	4.085	4.3	4.515	22	20	2,000	0.25	5.0	1.0
MMSZ5230B	D5	4.465	4.7	4.935	19	20	1,900	0.25	5.0	2.0
MMSZ5231B	E1	4.845	5.1	5.355	17	20	1,600	0.25	5.0	2.0
MMSZ5232B	E2	5.32	5.6	5.88	11	20	1,600	0.25	5.0	3.0
MMSZ5233B	E3	5.7	6	6.3	7.0	20	1,600	0.25	5.0	3.5
MMSZ5234B	E4	5.89	6.2	6.51	7.0	20	1,000	0.25	5.0	4.0
MMSZ5235B	E5	6.46	6.8	7.14	5.0	20	750	0.25	3.0	5.0
MMSZ5236B	F1	7.125	7.5	7.875	6.0	20	500	0.25	3.0	6.0
MMSZ5237B	F2	7.79	8.2	8.61	8.0	20	500	0.25	3.0	6.5
MMSZ5238B	F3	8.265	8.7	9.135	8.0	20	600	0.25	3.0	6.5
MMSZ5239B	F4	8.645	9.1	9.555	10	20	600	0.25	3.0	7.0
MMSZ5240B	F5	9.5	10	10.5	17	20	600	0.25	3.0	8.0
MMSZ5241B	H1	10.45	11	11.55	22	20	600	0.25	2.0	8.4
MMSZ5242B	H2	11.4	12	12.6	30	20	600	0.25	1.0	9.1
MMSZ5243B	H3	12.35	13	13.65	13	9.5	600	0.25	0.5	9.9
MMSZ5244B	H4	13.3	14	14.7	15	9.0	600	0.25	0.1	10
MMSZ5245B	H5	14.25	15	15.75	16	8.5	600	0.25	0.1	11
MMSZ5246B	J1	15.2	16	16.8	17	7.8	600	0.25	0.1	12
MMSZ5247B	J2	16.15	17	17.85	19	7.4	600	0.25	0.1	13

V_F Foward Voltage = 0.9V Maximum @ I_F = 10mA for all MMSZ5200 series

Electrical Characteristics (Continued) T_A = 25°C unless otherwise noted

Device	Mark	V_Z (V)			$Z_Z(\Omega)$ @ I_{ZK}(mA)		$Z_{ZK}(\Omega)$ @ I_{ZK}(mA)		$I_R(\mu A)$ @ V_R (V)	
		Min.	Typ.	Max.						
MMSZ5248B	J3	17.1	18	18.9	21	7.0	600	0.25	0.1	14
MMSZ5249B	J4	18.05	19	19.95	23	6.6	600	0.25	0.1	14
MMSZ5250B	J5	19	20	21	25	6.2	600	0.25	0.1	15
MMSZ5251B	K1	20.92	22	23.1	29	5.6	600	0.25	0.1	17
MMSZ5252B	K2	22.8	24	25.2	33	5.2	600	0.25	0.1	18
MMSZ5253B	K3	23.75	25	26.25	35	5.0	600	0.25	0.1	19
MMSZ5254B	K4	25.65	27	28.35	41	4.6	600	0.25	0.1	21
MMSZ5255B	K5	26.6	28	29.4	44	4.5	600	0.25	0.1	21
MMSZ5256B	M1	28.5	30	31.5	49	4.2	600	0.25	0.1	23
MMSZ5257B	M2	31.35	33	34.65	58	3.8	700	0.25	0.1	25
V_F Foward Voltage = 0.9V Maximum @ I_F = 10mA for all MMSZ5200 series										

Typical Performance Characteristics

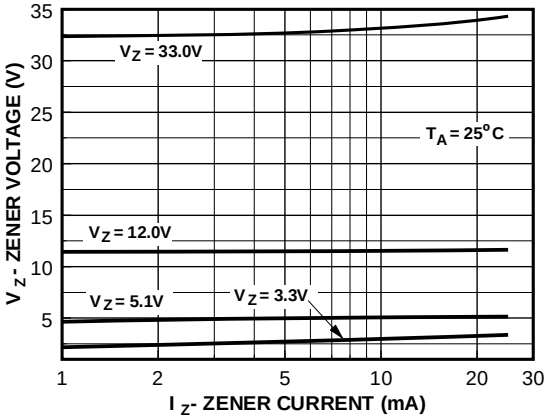

Figure 1. Zener Current vs. Zener Voltage

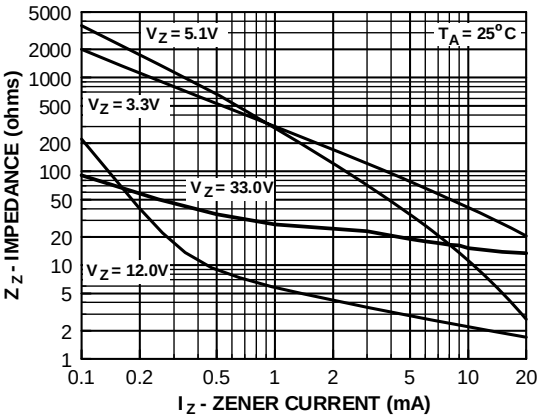

Figure 2. Zener Current vs. Zener Impedence

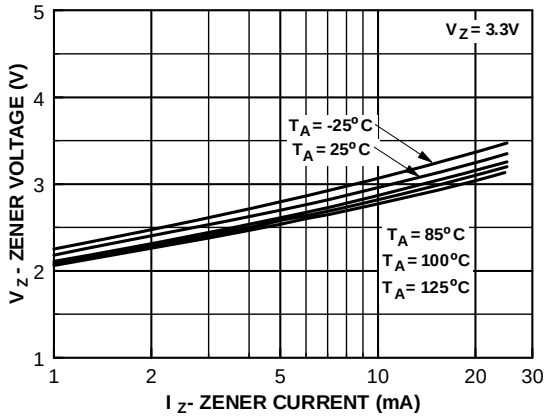

Figure 3. 3.3 Zener Voltage vs. Temperature

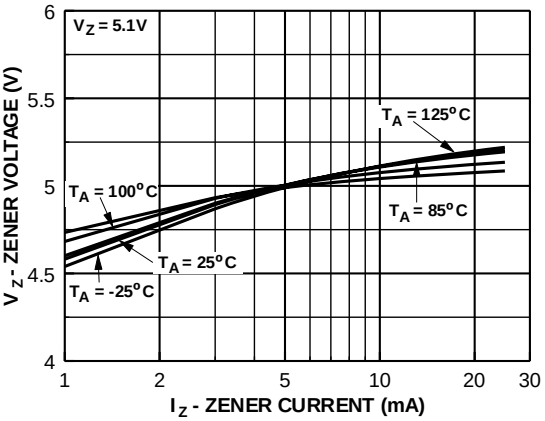

Figure 4. 5.1 Zener Voltage vs. Temperature

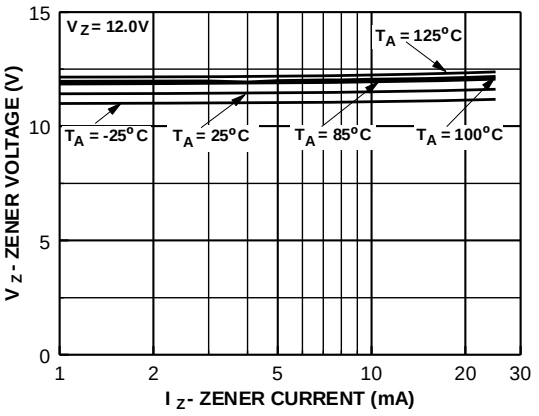

Figure 5. 12 Zener Voltage vs. Zener Temperature

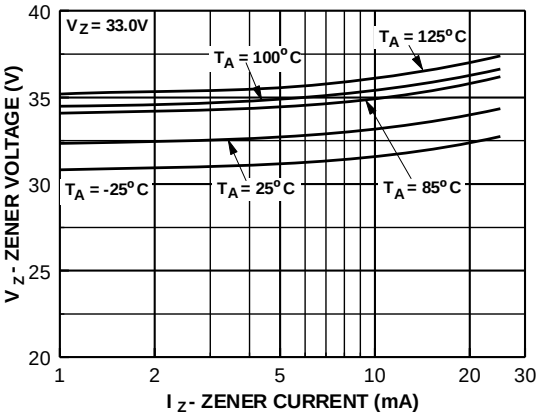

Figure 6. 33 Zener Voltage vs. Zener Temperature

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