

**SEMICONDUCTOR**

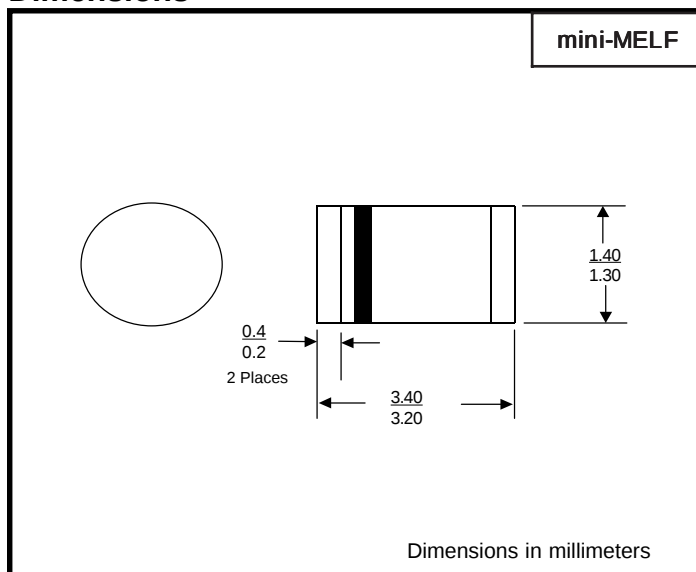
TECHNICAL SPECIFICATION

**ZMM5221B
THRU
ZMM5257B****500mW 5% mini-M.E.L.F ZENER DIODE****Absolute Maximun Ratings (Ta=25°C)**

Items	Symbol	Ratings	Unit
Power Dissipation	P_{TOT}	500	mW
Thermal Resis.	R0JA	0.3	K/mW
Forward Voltage @If = 10 mA	Vf	1.1	V
Vz Tolerance		5	%
Junction Temp.	T_J	-65 to 200	°C
Storage Temp.	T_{STG}	-65 to 200	°C

Mechanical Data

Items	Materials
Package	mini-MELF
Case	Hermeticall sealed glass
Lead Finish	Solder Plating

Dimensions**Electrical Characteristics (Ta=25°C)**

TYPE	ZENER VOLTAGE		MAX ZENER IMPEDANCE		MAX ZENER IMPEDANCE Izt = 1.0mA	MAXIMUM REVERSE CURRENT		TEMP. COEFF.
	Vz(V)	Izt(mA)	Rz (ohms)	Izt(mA0)	Rz (ohms)	VR (V)	IR (uA)	dvz (%/ °C)
ZMM5221B	2.4	20	30	20	1200	1.0	100	-0.085
ZMM5222B	2.5	20	30	20	1250	1.0	100	-0.085
ZMM5223B	2.7	20	30	20	1300	1.0	75	-0.080
ZMM5224B	2.8	20	30	20	1400	1.0	75	-0.080
ZMM5225B	3.0	20	29	20	1600	1.0	50	-0.075
ZMM5226B	3.3	20	28	20	1600	1.0	25	-0.070
ZMM5227B	3.6	20	24	20	1700	1.0	15	-0.065
ZMM5228B	3.9	20	23	20	1900	1.0	10	-0.060
ZMM5229B	4.3	20	22	20	2000	1.0	5	+/-0.055
ZMM5230B	4.7	20	19	20	1900	2.0	5	+/-0.030
ZMM5231B	5.1	20	17	20	1600	2.0	5	+/-0.030
ZMM5232B	5.6	20	11	20	1600	3.0	5	+0.038
ZMM5233B	6.0	20	7	20	1600	3.5	5	+0.038
ZMM5234B	6.2	20	7	20	1000	4.0	5	+0.045

TYPE	ZENER VOLTAGE		MAX ZENER IMPEDANCE		MAX ZENER IMPEDANCE I _z = 1.0mA	MAXIMUM REVERSE CURRENT		TEMP. COEFF.
	V _z (V)	I _z (mA)	R _z (ohms)	I _z (mA)	R _z (ohms)	V _R (V)	I _R (μA)	dv _z (%/ °C)
ZMM5235B	6.8	20	5	20	750	5.6	3	+0.050
ZMM5236B	7.5	20	6	20	500	6.0	3.0	+0.058
ZMM5237B	8.2	20	8	20	500	6.5	3.0	+0.062
ZMM5238B	8.7	20	8	20	600	6.5	3.0	+0.065
ZMM5239B	9.1	20	10	20	600	7.0	3.0	+0.068
ZMM5240B	10	20	17	20	600	8.0	3.0	+0.075
ZMM5241B	11	20	22	20	600	8.4	2.0	+0.076
ZMM5242B	12	20	30	20	600	9.1	1.0	+0.077
ZMM5243B	13	9.5	13	9.5	600	9.9	0.5	+0.079
ZMM5244B	14	9.0	15	9.0	600	10	0.1	+0.082
ZMM5245B	15	8.5	16	8.5	600	11	0.1	+0.082
ZMM5246B	16	7.8	17	7.8	600	12	0.1	+0.083
ZMM5247B	17	7.4	19	7.4	600	13	0.1	+0.084
ZMM5248B	18	7.0	21	7.0	600	14	0.1	+0.085
ZMM5249B	19	6.6	23	6.6	600	14	0.1	+0.086
ZMM5250B	20	6.2	25	6.2	600	15	0.1	+0.086
ZMM5251B	22	5.6	29	5.6	600	17	0.1	+0.087
ZMM5252B	24	5.2	33	5.2	600	18	0.1	+0.088
ZMM5253B	25	5.0	35	5.0	600	19	0.1	+0.089
ZMM5254B	27	4.6	41	4.6	600	21	0.1	+0.090
ZMM5255B	28	4.5	44	4.5	600	21	0.1	+0.091
ZMM5256B	30	4.2	49	4.2	600	23	0.1	+0.091
ZMM5257B	33	3.8	58	3.8	700	25	0.1	+0.092