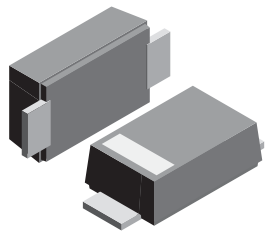
MMSZ5221B - MMSZ5262B

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE RANGE: 2.4 - 51V
POWER: 0.5Watts



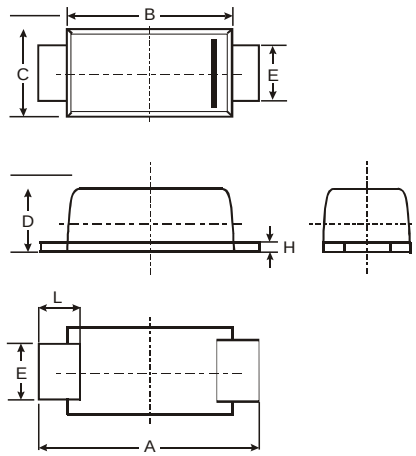
Features

- Planar Die Construction
- 500mW Power Dissipation
- 2.4 – 51V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Polarity: Color band denotes positive end (cathode) except for bidirectional
- Mounting position: Any
- Weight:0.0007 ounce, 0.02 grams

RoHS COMPLIANT



SOD-123FL			
Dim	**Min**	**Max**	**Typ**
A	3.50	3.80	3.65
B	2.60	2.90	2.75
C	1.70	1.90	1.80
D	0.09	1.10	1.00
E	0.08	1.10	0.095
H	0.12	0.20	0.16
L	0.07	0.09	0.08
All Dimensions in mm			

Maximum Ratings and Electrical Characteristics

@ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at T_A = 25°C (Note 1)	P_d	500	mW
Forward Voltage @ I_F = 10mA	V_F	0.9	V
Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	340	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	°C

Note: 1. Diode on ceramic substrate 10mm x 8mm x 0.7mm.

Electrical Characteristics @T_A=25°C unless otherwise specified

Type Number (Note 1)	Zener Voltage Range (Note 2)			Maximum Zener Impedance (Note 3)				Max Reverse Leakage Current		Typical Temp. Coefficient of Zener Voltage
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK}	I_{ZK}	I_R	@ V_R	
	Nom (V)	Min (V)	Max (V)	(Ω)	(mA)	(Ω)	(mA)	(μA)	(V)	(%/K)
MMSZ5221B	2.4	2.28	2.52	30	20	1200	0.25	100	1.0	-0.075
MMSZ5222B	2.5	2.38	2.63	30	20	1250	0.25	100	1.0	-0.075
MMSZ5223B	2.7	2.57	2.84	30	20	1300	0.25	75	1.0	-0.075
MMSZ5225B	3.0	2.85	3.15	30	20	1600	0.25	50	1.0	-0.075
MMSZ5226B	3.3	3.14	3.47	28	20	1600	0.25	25	1.0	-0.070
MMSZ5227B	3.6	3.42	3.78	24	20	1700	0.25	15	1.0	-0.065
MMSZ5228B	3.9	3.71	4.10	23	20	1900	0.25	10	1.0	-0.060
MMSZ5229B	4.3	4.09	4.52	22	20	2000	0.25	5.0	1.0	-0.055
MMSZ5230B	4.7	4.47	4.94	19	20	1900	0.25	5.0	2.0	±0.030
MMSZ5231B	5.1	4.85	5.36	17	20	1600	0.25	5.0	2.0	±0.030
MMSZ5232B	5.6	5.32	5.88	11	20	1600	0.25	5.0	3.0	+0.038
MMSZ5234B	6.2	5.89	6.51	7.0	20	1000	0.25	5.0	4.0	+0.045
MMSZ5235B	6.8	6.46	7.14	5.0	20	750	0.25	3.0	5.0	+0.050
MMSZ5236B	7.5	7.13	7.88	6.0	20	500	0.25	3.0	6.0	+0.058
MMSZ5237B	8.2	7.79	8.61	8.0	20	500	0.25	3.0	6.0	+0.062
MMSZ5239B	9.1	8.65	9.56	10	20	600	0.25	3.0	6.5	+0.068
MMSZ5240B	10	9.50	10.50	17	20	600	0.25	3.0	8.0	+0.075
MMSZ5241B	11	10.45	11.55	22	20	600	0.25	2.0	8.4	+0.076
MMSZ5242B	12	11.40	12.60	30	20	600	0.25	1.0	9.1	+0.077
MMSZ5243B	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9	+0.079
MMSZ5245B	15	14.25	15.75	16	8.5	600	0.25	0.1	11	+0.082
MMSZ5246B	16	15.20	16.80	17	7.8	600	0.25	0.1	12	+0.083
MMSZ5248B	18	17.10	18.90	21	7.0	600	0.25	0.1	14	+0.085
MMSZ5250B	20	19.00	21.00	25	6.2	600	0.25	0.1	15	+0.086
MMSZ5251B	22	20.90	23.10	29	5.6	600	0.25	0.1	17	+0.087
MMSZ5252B	24	22.80	25.20	33	5.2	600	0.25	0.1	18	+0.087
MMSZ5254B	27	25.65	28.35	41	5.0	600	0.25	0.1	21	+0.090
MMSZ5255B	28	26.60	29.40	44	4.5	600	0.25	0.1	21	+0.091
MMSZ5256B	30	28.50	31.50	49	4.2	600	0.25	0.1	23	+0.091
MMSZ5257B	33	31.35	34.65	58	3.8	700	0.25	0.1	25	+0.092
MMSZ5258B	36	34.20	37.80	70	3.4	700	0.25	0.1	27	+0.093
MMSZ5259B	39	37.05	40.95	80	3.2	800	0.25	0.1	30	+0.094
MMSZ5260B	43	40.85	45.15	93	3.0	900	0.25	0.1	33	+0.095
MMSZ5261B	47	44.65	49.35	105	2.7	1000	0.25	0.1	36	+0.095
MMSZ5262B	51	48.45	53.55	125	2.5	1100	0.25	0.1	39	+0.096

Note: 1. Type numbers listed have standard tolerance on the nominal zener voltage of ±5%.
2. Measured with pulses t_p = 1ms.
3. f = 1KHz