MMSZ5221BS THRU MMSZ5259BS

200mW Surface Mount Zener Diode

Voltage Range
2.4 to 39 Volts
200m Watts Power Dissipation

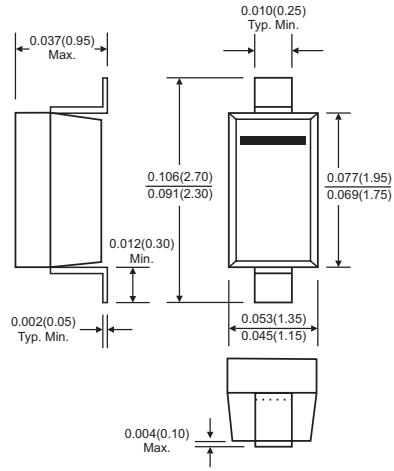
Features

- ✧ Planar die construction
- ✧ 200 mW power dissipation
- ✧ Ideally suited for automated assembly processes
- ✧ General purpose, medium current
- ✧ Standard zener voltage tolerance is ±5%
- ✧ Plastic Material – UL recognition flammability classification 94V-0

Mechanical Data

- ✧ Case: SOD-323, Plastic
- ✧ Terminals: Solderable per MIIL-STD-202, Method 208
- ✧ Polarity: Cathode band
- ✧ Marking: Date Code and Type Code
  Type Code: See table on Page 2
- ✧ Weight: 0.04 grams (approx.)

SOD-323



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Forward Voltage @ IF = 10mA	VF	0.9	V
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	^{O}C /W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	^{O}C

Note: 1. Valid Provided that Device Terminals are Kept at Ambient Temperature.

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

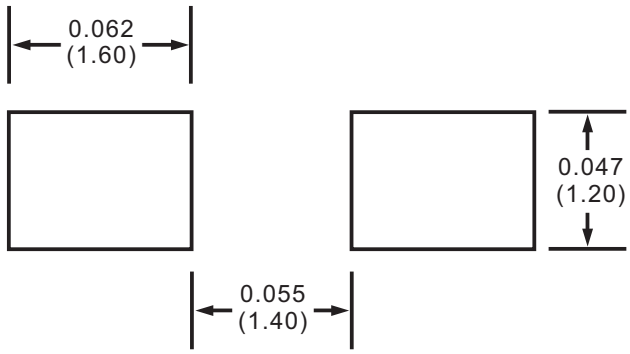
Device (Note 1)	Device Marking Code	Zener Voltage Range (Note 2) V_Z @ I_{ZT}			Maximum Zener Impedance (Note 3)				Maximum Reverse Leakage Current I_R @ V_R		Typical Temp. Coefficient of Zener Voltage
					Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}				
		Nom (V)	Min (V)	Max (V)	Ohms	mA	Ohms	mA	uA	Volts	(% / K)
MMSZ5221BS	C1	2.4	2.28	2.52	30	20	1200	0.25	100	1.0	-0.075
MMSZ5222BS	C2	2.5	2.38	2.63	30	20	1200	0.25	100	1.0	-0.075
MMSZ5223BS	C3	2.7	2.57	2.84	30	20	1300	0.25	75	1.0	-0.075
MMSZ5225BS	C5	3.0	2.85	3.15	30	20	1600	0.25	50	1.0	-0.075
MMSZ5226BS	D1	3.3	3.14	3.47	28	20	1600	0.25	25	1.0	-0.070
MMSZ5227BS	D2	3.6	3.42	3.78	24	20	1700	0.25	15	1.0	-0.065
MMSZ5228BS	D3	3.9	3.71	4.10	23	20	1900	0.25	10.0	1.0	-0.060
MMSZ5229BS	D4	4.3	4.09	4.52	22	20	2000	0.25	5.0	1.0	-0.055
MMSZ5230BS	D5	4.7	4.47	4.94	19	20	1900	0.25	5.0	2.0	+/-0.030
MMSZ5231BS	E1	5.1	4.85	5.36	17	20	1600	0.25	5.0	2.0	+/-0.030
MMSZ5232BS	E2	5.6	5.32	5.88	11	20	1600	0.25	5.0	3.0	+0.038
MMSZ5234BS	E4	6.2	5.89	6.51	7.0	20	1000	0.25	5.0	4.0	+0.045
MMSZ5235BS	E5	6.8	6.46	7.14	5.0	20	750	0.25	3.0	5.0	+0.050
MMSZ5236BS	F1	7.5	7.13	7.88	6.0	20	500	0.25	3.0	6.0	+0.058
MMSZ5237BS	F2	8.2	7.79	8.61	8.0	20	500	0.25	3.0	6.5	+0.062
MMSZ5239BS	F4	9.1	8.65	9.56	10	20	600	0.25	3.0	7.0	+0.068
MMSZ5240BS	F5	10	9.50	10.50	17	20	600	0.25	3.0	8.0	+0.075
MMSZ5241BS	H1	11	10.45	11.55	22	20	600	0.25	2.0	8.4	+0.076
MMSZ5242BS	H2	12	11.40	12.60	30	20	600	0.25	1.0	9.1	+0.077
MMSZ5243BS	H3	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9	+0.079
MMSZ5245BS	H5	15	14.25	15.75	16	8.5	600	0.25	0.1	11	+0.082
MMSZ5246BS	J1	16	15.20	16.80	17	7.8	600	0.25	0.1	12	+0.083
MMSZ5248BS	J3	18	17.10	18.90	21	7.0	600	0.25	0.1	14	+0.085
MMSZ5250BS	J5	20	19.00	21.00	25	6.0	600	0.25	0.1	15	+0.086
MMSZ5251BS	K1	22	20.90	23.10	29	5.6	600	0.25	0.1	17	+0.087
MMSZ5252BS	K2	24	22.80	25.20	33	5.2	600	0.25	0.1	18	+0.087
MMSZ5254BS	K4	27	25.65	28.35	41	4.6	600	0.25	0.1	21	+0.090
MMSZ5255BS	K5	28	26.60	29.40	44	4.5	600	0.25	0.1	21	+0.091
MMSZ5256BS	M1	30	28.50	31.50	49	4.2	600	0.25	0.1	23	+0.091
MMSZ5257BS	M2	33	31.35	34.65	58	3.8	700	0.25	0.1	25	+0.092
MMSZ5258BS	M3	36	34.20	37.80	70	3.4	700	0.25	0.1	27	+0.093
MMSZ5259BS	M4	39	37.05	40.95	80	3.2	800	0.25	0.1	30	+0.094

Notes: 1: Type numbers listed have standard tolerance on the nominal zener voltage of +/- 5%.

2. Tested with pulses, Tp≤ 1.0ms.

3. f=1KHz

RECOMMENDED FOOTPRINT



inches(mm)