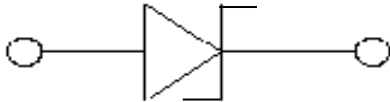


Zener Diodes



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Zener Voltage 2.4V~47V



Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Power Dissipation	P_D	mW	200
Storage Temperature Range	T_{stg}	$^\circ\text{C}$	-55~+150
Junction Temperature	T_J	$^\circ\text{C}$	-55~+150
Maximum Regulator Current	I_{zM}	mA	P_D / V_z
Maximum Forward Voltage ($I_F=10\text{mA}_{dc}$)	V_F	V	0.9
Thermal Resistance Junction to Ambient Air*	$R_{\theta JA}$	$^\circ\text{C} / \text{W}$	625

*Device mounted on ceramic PCB: 7.6mm×9.4mm×0.87mm with pad areas 25mm²

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMSZ5221BS THRU MMSZ5261BS	F2	Approximate 0.004	3000	30000	120000	7" reel



MMSZ5221BS THRU MMSZ5261BS

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

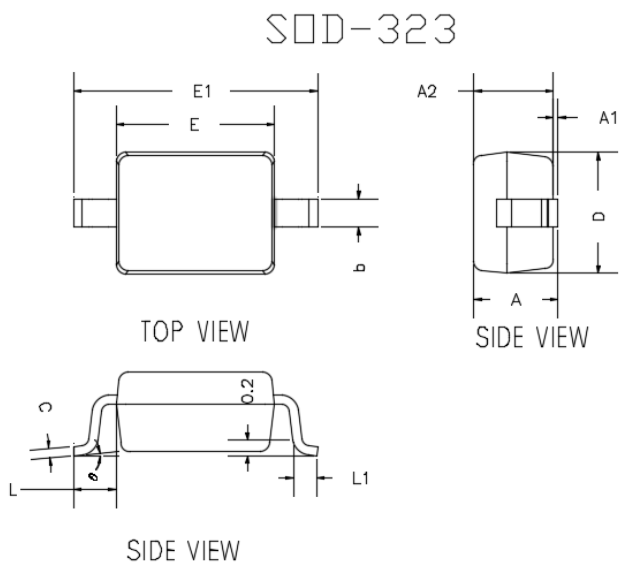
TypeNumber	Device Marking	V _z (V) at I _{z1}			Z _{z1} (Ω)		Z _{zk} (Ω)		I _R (μA)@V _R	
		min.	typ.	max.	I _{z1} (mA)	max.	I _{zk} (mA)	max.	uA	V _R (V)
MMSZ5221BS	C1	2.28	2.4	2.52	20	30	0.25	1200	100	1.0
MMSZ5222BS	C2	2.38	2.5	2.63	20	30	0.25	1250	100	1.0
MMSZ5223BS	C3	2.57	2.7	2.84	20	30	0.25	1300	75	1.0
MMSZ5225BS	C5	2.85	3.0	3.15	20	29	0.25	1600	50	1.0
MMSZ5226BS	G1	3.14	3.3	3.47	20	28	0.25	1600	25	1.0
MMSZ5227BS	G2	3.42	3.6	3.78	20	24	0.25	1700	15	1.0
MMSZ5228BS	G3	3.71	3.9	4.10	20	23	0.25	1900	10	1.0
MMSZ5229BS	G4	4.09	4.3	4.52	20	22	0.25	2000	5	1.0
MMSZ5230BS	G5	4.47	4.7	4.94	20	19	0.25	1900	5	2.0
MMSZ5231BS	E1	4.85	5.1	5.36	20	17	0.25	1600	5	2.0
MMSZ5232BS	E2	5.32	5.6	5.88	20	11	0.25	1600	5	3.0
MMSZ5234BS	E4	5.89	6.2	6.51	20	7	0.25	1000	5	4.0
MMSZ5235BS	E5	6.46	6.8	7.14	20	5	0.25	750	3	5.0
MMSZ5236BS	F1	7.13	7.5	7.88	20	6	0.25	500	3	6.0
MMSZ5237BS	F2	7.79	8.2	8.61	20	8	0.25	500	3	6.5
MMSZ5239BS	F4	8.65	9.1	9.56	20	10	0.25	600	3	7.0
MMSZ5240BS	F5	9.50	10	10.50	20	17	0.25	600	3	8.0
MMSZ5241BS	H1	10.45	11	11.55	20	22	0.25	600	2	8.4
MMSZ5242BS	H2	11.40	12	12.60	20	30	0.25	600	1	9.1
MMSZ5243BS	H3	12.35	13	13.65	9.5	13	0.25	600	0.5	9.9
MMSZ5245BS	H5	14.25	15	15.75	8.5	16	0.25	600	0.1	11.0
MMSZ5246BS	J1	15.20	16	16.80	7.8	17	0.25	600	0.1	12.0
MMSZ5248BS	J3	17.10	18	18.90	7	21	0.25	600	0.1	14.0
MMSZ5250BS	J5	19.00	20	21.00	6.2	25	0.25	600	0.1	15.0
MMSZ5251BS	K1	20.90	22	23.10	5.6	29	0.25	600	0.1	17.0
MMSZ5252BS	K2	22.80	24	25.20	5.2	33	0.25	600	0.1	18.0
MMSZ5254BS	K4	25.65	27	28.35	4.6	41	0.25	600	0.1	21.0



MMSZ5221BS THRU MMSZ5261BS

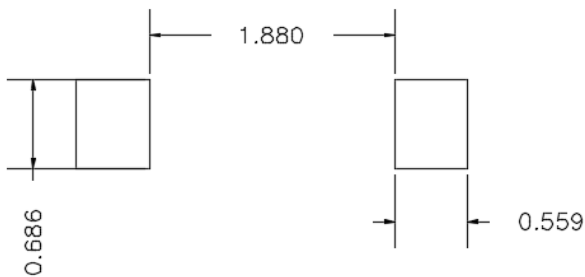
MMSZ5256BS	M1	28.50	30	31.50	4.2	49	0.25	600	0.1	23.0
MMSZ5257BS	M2	31.35	33	34.65	3.8	58	0.25	700	0.1	25.0
MMSZ5258BS	M3	34.20	36	37.80	3.4	70	0.25	700	0.1	27.0
MMSZ5259BS	M4	37.05	39	40.95	3.2	80	0.25	800	0.1	30.0
MMSZ5260BS	M5	40.85	43	45.15	3	93	0.25	900	0.1	33.0
MMSZ5261BS	N1	44.65	47	49.35	2.7	105	0.25	1000	0.1	36.0

■Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
e	0°	8°	0°	8°

■Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



MMSZ5221BS THRU MMSZ5261BS

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