



MMSZ5221BS-MMSZ5263BS

Surface mount zener diode

FEATURES

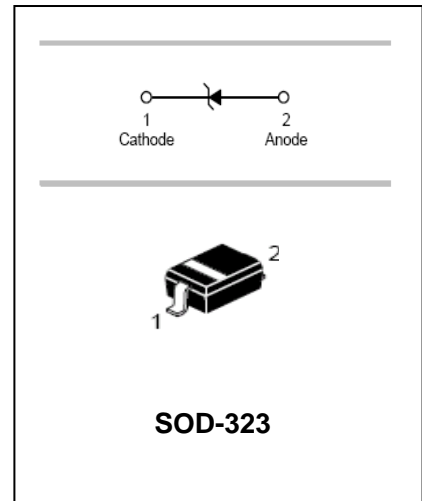
- Planar die construction
- General purpose, medium current
- Ideally suited for automated assembly processes



Lead-free

APPLICATIONS

- Zener diode
- Ultra-small surface mount package



ORDERING INFORMATION

Type No.	Marking	Package Code
MMSZ5221BS-MMSZ5263BS	See table 2	SOD-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _d	200	mW
Thermal resistance, junction to ambient air	R _{θJA}	625	°C/W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

Notes: 1. Valid provided that device terminals are kept at ambient temperature.

2. Tested with pulses, t ≤ 1.0ms.



MMSZ5221BS-MMSZ5263BS

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range			Test Current	Maximum Zener Impedance		Maximum Reverse Leakage Current	
		V _Z @I _{ZT}				I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK} =0.25mA	I _R
		Nom(V)	Min(V)	Max(V)	mA	Ω		μA	V
MMSZ5221BS	C1	2.4	2.28	2.52	20	30	1200	100	1.0
MMSZ5223BS	C3	2.7	2.57	2.84	20	30	1300	75	1.0
MMSZ5225BS	C5	3.0	2.85	3.15	20	30	1600	50	1.0
MMSZ5226BS	G1	3.3	3.14	3.47	20	28	1600	25	1.0
MMSZ5227BS	G2	3.6	3.42	3.78	20	24	1700	15	1.0
MMSZ5228BS	G3	3.9	3.71	4.10	20	23	1900	10	1.0
MMSZ5229BS	G4	4.3	4.09	4.52	20	22	2000	5.0	1.0
MMSZ5230BS	G5	4.7	4.47	4.94	20	19	1900	5.0	2.0
MMSZ5231BS	E1	5.1	4.85	5.36	20	17	1600	5.0	2.0
MMSZ5232BS	E2	5.6	5.32	5.88	20	11	1600	5.0	3.0
MMSZ5233BS	E3	6.0	5.70	6.30	20	7	1600	5.0	3.5
MMSZ5234BS	E4	6.2	5.89	6.51	20	7	1000	5.0	4.0
MMSZ5235BS	E5	6.8	6.46	7.14	20	5	750	3.0	5.0
MMSZ5236BS	F1	7.5	7.13	7.88	20	6	500	3.0	6.0
MMSZ5237BS	F2	8.2	7.79	8.61	20	8	500	3.0	6.5
MMSZ5238BS	F3	8.7	8.27	9.14	20	8	600	3.0	6.5
MMSZ5239BS	F4	9.1	8.65	9.56	20	10	600	3.0	7.0
MMSZ5240BS	F5	10	9.50	10.50	20	17	600	3.0	8.0
MMSZ5241BS	H1	11	10.45	11.55	20	22	600	2.0	8.4
MMSZ5242BS	H2	12	11.40	12.60	20	30	600	1.0	9.1
MMSZ5243BS	H3	13	12.35	13.65	9.5	13	600	0.5	9.9
MMSZ5245BS	H5	15	14.25	15.75	8.5	16	600	0.1	11
MMSZ5246BS	J1	16	15.20	16.80	7.8	17	600	0.1	12
MMSZ5248BS	J3	18	17.10	18.90	7.0	21	600	0.1	14
MMSZ5250BS	J5	20	19.00	21.00	6.2	25	600	0.1	15
MMSZ5251BS	K1	22	20.90	23.10	5.6	29	600	0.1	17
MMSZ5252BS	K2	24	22.80	25.20	5.2	33	600	0.1	18
MMSZ5254BS	K4	27	25.65	28.35	5.0	41	600	0.1	21
MMSZ5255BS	K5	28	26.60	29.40	4.5	44	600	0.1	21
MMSZ5256BS	M1	30	28.50	31.5	4.2	49	600	0.1	23
MMSZ5257BS	M2	33	31.35	34.65	3.8	58	700	0.1	25
MMSZ5258BS	M3	36	34.20	37.80	3.4	70	700	0.1	27
MMSZ5259BS	M4	39	37.05	40.95	3.2	80	800	0.1	30
MMSZ5260BS	M5	43	40.85	45.15	3.0	93	900	0.1	33
MMSZ5261BS	M6	47	44.65	49.35	2.7	105	1000	0.1	36



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Type Number	Marking Code	Zener Voltage Range			Test Current	Maximum Zener Impedance		Maximum Reverse Leakage Current	
		$V_z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}=0.25mA$	I_R	@ V_R
		Nom(V)	Min(V)	Max(V)	mA	Ω		μA	V
MMSZ5262BS	M7	51	48.45	53.55	2.5	125	1100	0.1	39
MMSZ5263BS	M8		53.20	58.80	2.2	150	1300	0.1	43

- Notes: 1. Valid provided that device terminals are kept at ambient temperature.
 2. Tested with pulses, $t \leq 1.0ms$.

TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

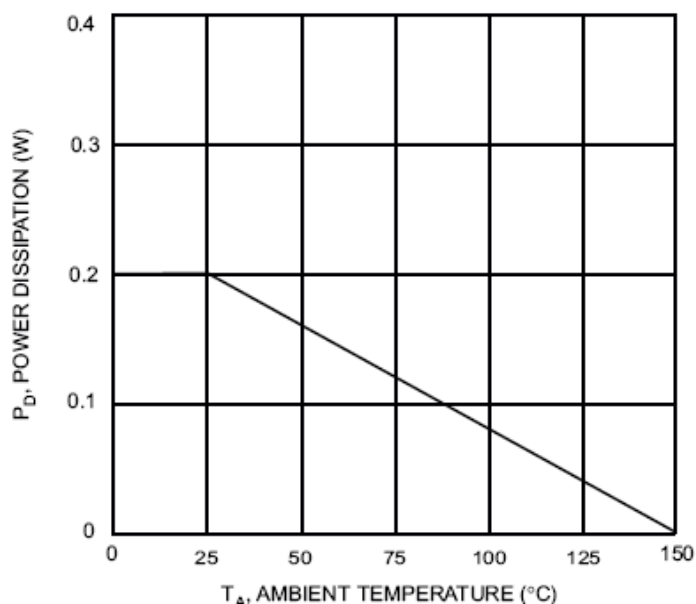


Fig. 1 Power Dissipation vs Ambient Temperature



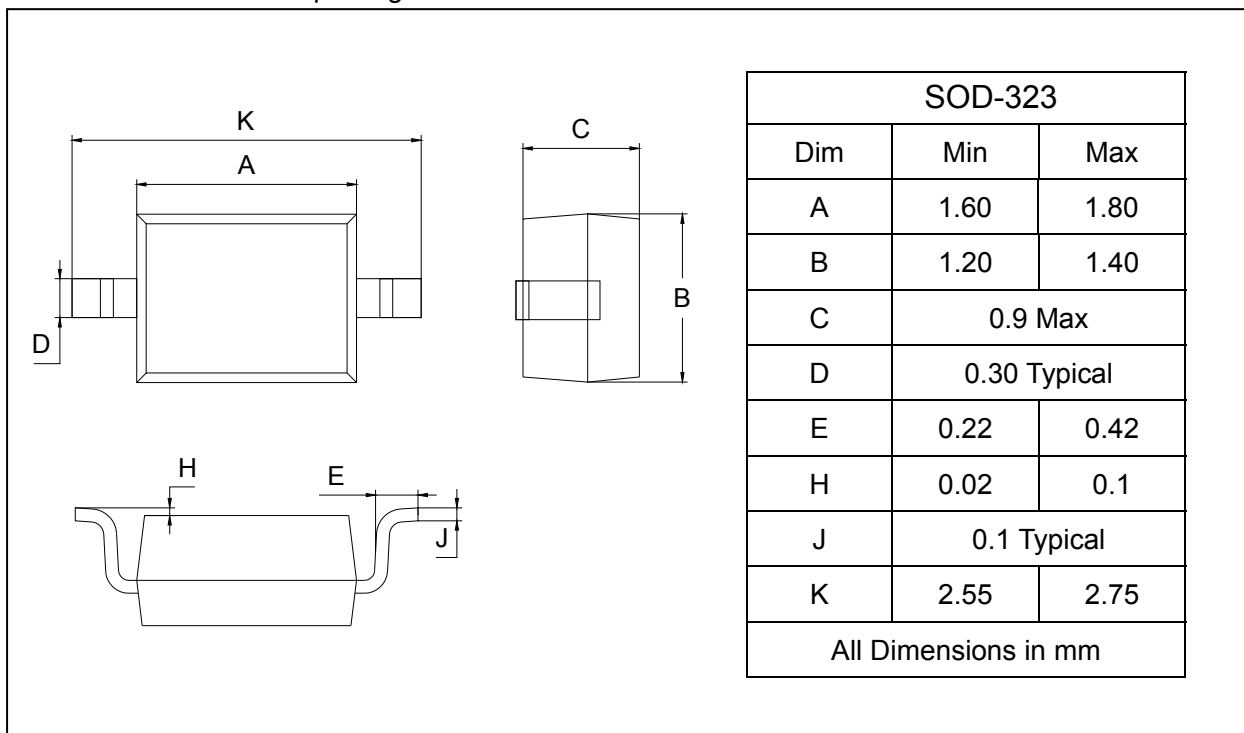
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Surface mount zener diode

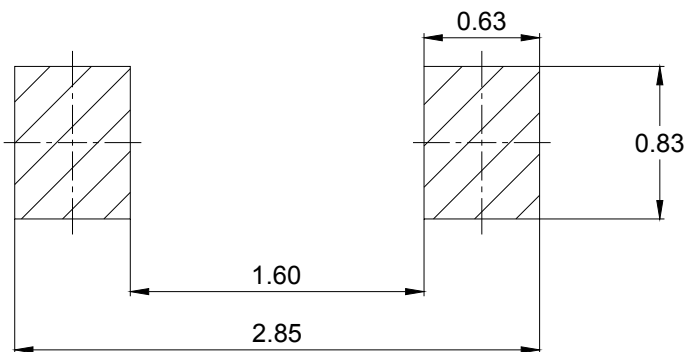
PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMSZ5221BS-MMSZ5263BS	SOD-323	3000/Tape&Reel