

/ Descriptions

SOD-123

Zener Diode in a SOD-123 Plastic Package.

/ Features

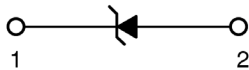
2.4V-110V

500mW

Wide zener reverse voltage range 2.4V-110V,Maximum P_D to 500mW. HF Product.**/ Applications**

500mW SOD-123

Design for 500mW SOD-123 surface mount.

/ Equivalent Circuit**/ Pinning**

PIN1:Cathode

PIN2:Anode

/ h_{FE} Classifications & Marking

See Electrical Characteristics.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Forward Voltage (Note 2) (IF=10mA)	V _F	0.9	V
Power Dissipation(Note 1)	P _D	500	mW
Thermal Resistance Junction to Ambient Air(Note 1)	R _{θJA}	350	/W
Operating and Storage Temperature Range	T _j , T _{stg}	-65 150	

/ Electrical Characteristics(Ta=25)

Device	Device Marking	Zener Voltage (Note 2)				Max. Zener Impedance (Note 3)			Max Reverse Leakage Current(Note 2)	
		V _Z (V)			@ I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}		I _R @ V _R	
		Min	Nom	Max	mA	Ω	Ω	mA	uA	V
MMSZ5221B	HC1	2.28	2.4	2.52	20	30	1200	0.25	100	1
MMSZ5222B	HC2	2.38	2.5	2.63	20	30	1250	0.25	100	1
MMSZ5223B	HC3	2.57	2.7	2.84	20	30	1300	0.25	75	1
MMSZ5224B	HC4	2.66	2.8	2.94	20	30	1400	0.25	75	1
MMSZ5225B	HC5	2.85	3.0	3.15	20	29	1600	0.25	50	1
MMSZ5226B	HD1	3.13	3.3	3.47	20	28	1600	0.25	25	1
MMSZ5227B	HD2	3.42	3.6	3.78	20	24	1700	0.25	15	1
MMSZ5228B	HD3	3.71	3.9	4.10	20	23	1900	0.25	10	1
MMSZ5229B	HD4	4.09	4.3	4.52	20	22	2000	0.25	5	1
MMSZ5230B	HD5	4.47	4.7	4.94	20	19	1900	0.25	5	2
MMSZ5231B	HE1	4.85	5.1	5.36	20	17	1600	0.25	5	2
MMSZ5232B	HE2	5.32	5.6	5.88	20	11	1600	0.25	5	3
MMSZ5233B	HE3	5.70	6.0	6.30	20	7	1600	0.25	5	3.5
MMSZ5234B	HE4	5.89	6.2	6.51	20	7	1000	0.25	5	4
MMSZ5235B	HE5	6.46	6.8	7.14	20	5	750	0.25	3	5
MMSZ5236B	HF1	7.13	7.5	7.88	20	6	500	0.25	3	6
MMSZ5237B	HF2	7.79	8.2	8.61	20	8	500	0.25	3	6.5
MMSZ5238B	HF3	8.27	8.7	9.14	20	8	600	0.25	3	6.5
MMSZ5239B	HF4	8.65	9.1	9.56	20	10	600	0.25	3	7
MMSZ5240B	HF5	9.50	10	10.50	20	17	600	0.25	3	8
MMSZ5241B	HH1	10.45	11	11.55	20	22	600	0.25	2	8.4
MMSZ5242B	HH2	11.40	12	12.60	20	30	600	0.25	1	9.1
MMSZ5243B	HH3	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MMSZ5244B	HH4	13.30	14	14.70	9.0	15	600	0.25	0.1	10
MMSZ5245B	HH5	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MMSZ5246B	HJ1	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MMSZ5247B	HJ2	16.15	17	17.85	7.4	19	600	0.25	0.1	13
MMSZ5248B	HJ3	17.10	18	18.90	7.0	21	600	0.25	0.1	14
MMSZ5249B	HJ4	18.05	19	19.05	6.6	23	600	0.25	0.1	14
MMSZ5250B	HJ5	19.00	20	21.00	6.2	25	600	0.25	0.1	15
MMSZ5251B	HK1	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MMSZ5252B	HK2	22.80	24	25.20	5.2	33	600	0.25	0.1	18

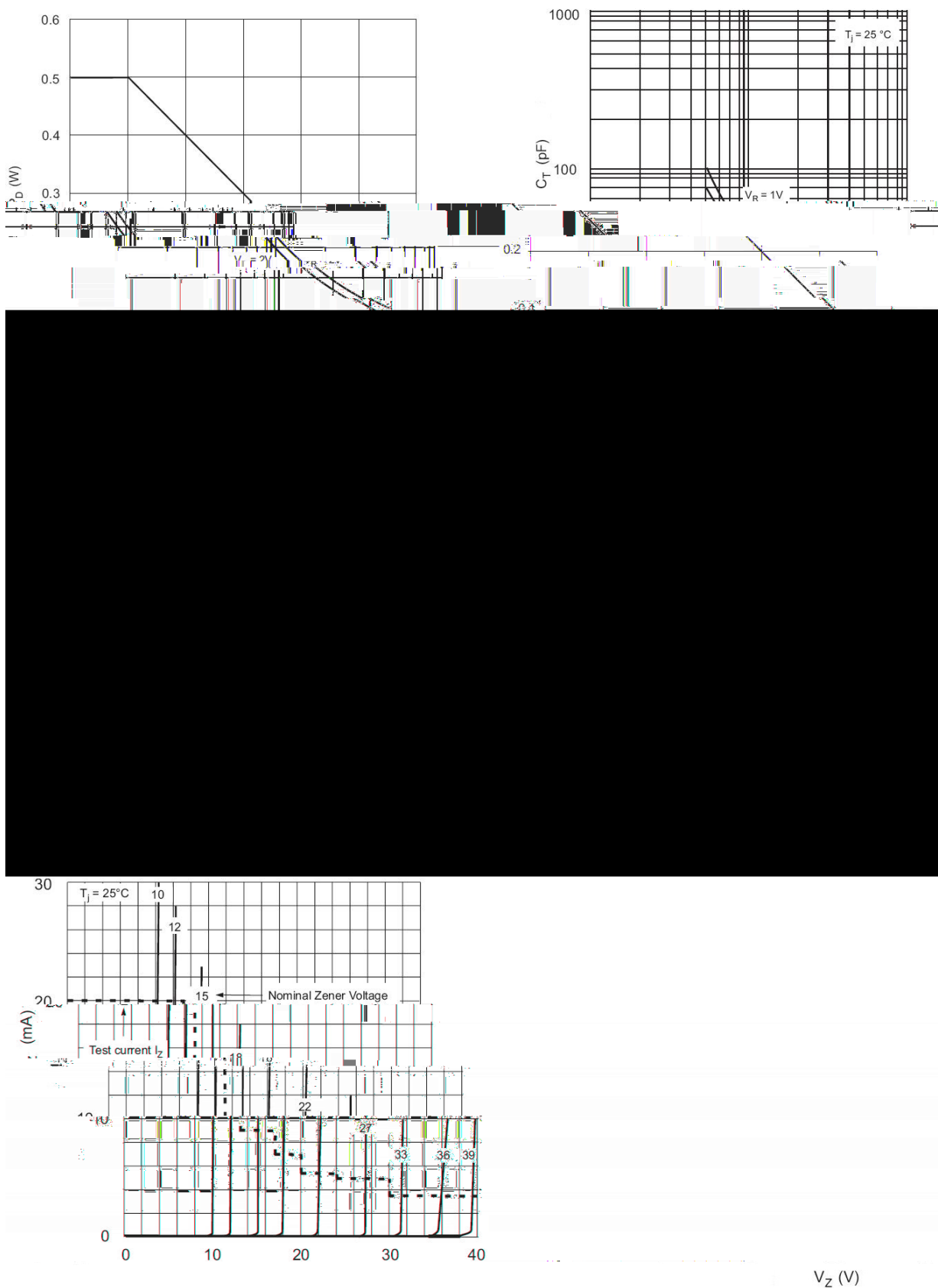
/ Electrical Characteristics(Ta=25)

Device	Device Marking	Zener Voltage (Note 2)				Max. Zener Impedance (Note 3)			Max Reverse Leakage Current(Note 2)	
		V _z (V)			@ I _{zT}	Z _{zt} @ I _{zT}	Z _{zk} @ I _{zk}		I _R @ V _R	
		Min	Nom	Max	mA	Ω	Ω	mA	uA	V
MMSZ5253B	HK3	23.75	25	26.25	5.0	35	600	0.25	0.1	19
MMSZ5254B	HK4	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MMSZ5255B	HK5	26.60	28	29.40	4.5	44	600	0.25	0.1	21
MMSZ5256B	HM1	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MMSZ5257B	HM2	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MMSZ5258B	HM3	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MMSZ5259B	HM4	37.05	39	40.95	3.2	80	800	0.25	0.1	30
MMSZ5260B	HM5	40.85	43	45.15	3.0	93	900	0.25	0.1	33
MMSZ5261B	HN1	44.65	47	49.35	2.7	105	1000	0.25	0.1	36
MMSZ5262B	HN2	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
MMSZ5263B	HN3	53.20	56	58.80	2.2	150	1300	0.25	0.1	43
MMSZ5264B	HN4	57.00	60	63.00	2.1	170	1400	0.25	0.1	46
MMSZ5265B	HN5	58.90	62	65.10	2.0	185	1400	0.25	0.1	47
MMSZ5266B	HP1	64.60	68	71.40	1.8	230	1600	0.25	0.1	52
MMSZ5267B	HP2	71.25	75	78.75	1.7	270	1700	0.25	0.1	56
MMSZ5268B	HP3	77.90	82	86.10	1.5	330	2000	0.25	0.1	62
MMSZ5269B	HP4	82.65	87	91.35	1.4	370	2200	0.25	0.1	68
MMSZ5270B	HP5	86.45	91	95.55	1.4	400	2300	0.25	0.1	69
MMSZ5272B	HR2	104.5	110	115.5	1.1	750	3000	0.25	0.1	84

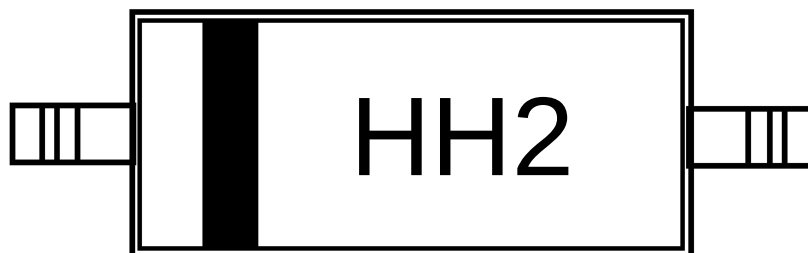
Notes:

1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.

/ Electrical Characteristic Curve



/ Marking Instructions



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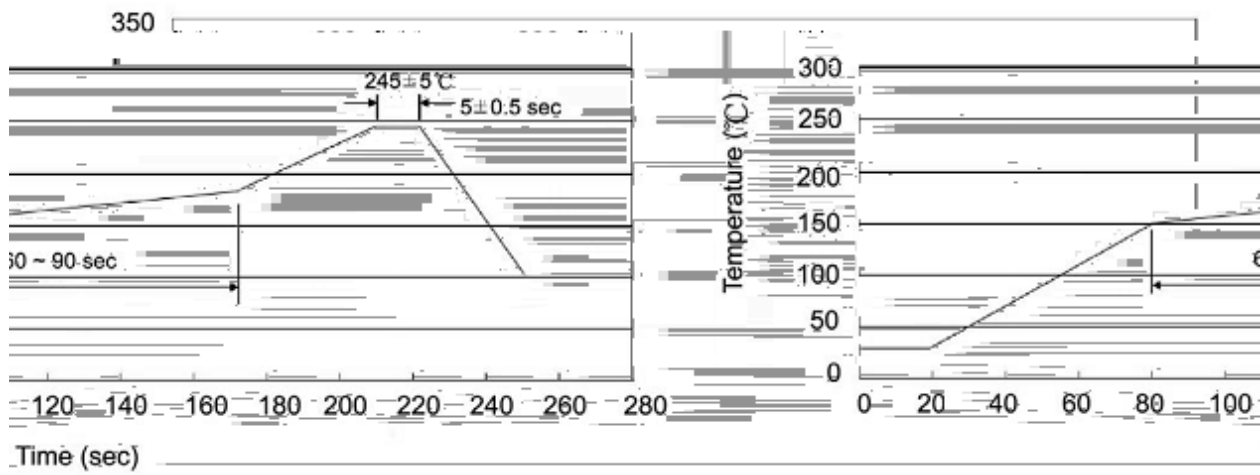
H2

Note:

H: Company Code.

H2: Product Type.

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices