

MMSZ4xxxS Series

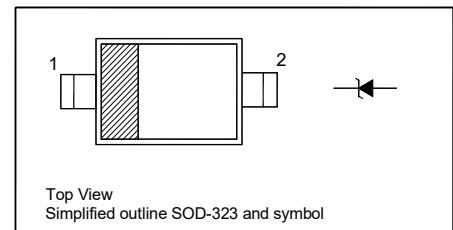
Silicon Planar Zener Diodes

Features

- Halogen and Antimony Free(HAF),
RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta\text{JA}}$	417	$^\circ\text{C/W}$

¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at $T_a = 25^\circ\text{C}$ ($V_F = 0.9\text{ V Max. at } I_F = 10\text{ mA}$)

Type	Marking Code	Zener Voltage ¹⁾				Reverse Current	
		V_{ZT}			at I_{ZT}	I_R	at V_R
		Nom. (V)	Min. (V)	Max. (V)	μA	Max. (μA)	V
MMSZ4678S	CC	1.8	1.71	1.89	50	7.5	1
MMSZ4679S	CD	2.0	1.9	2.1	50	5	1
MMSZ4680S	CE	2.2	2.09	2.31	50	4	1
MMSZ4681S	CF	2.4	2.28	2.52	50	2	1
MMSZ4682S	CH	2.7	2.57	2.84	50	1	1
MMSZ4683S	CJ	3.0	2.85	3.15	50	0.8	1
MMSZ4684S	CK	3.3	3.13	3.47	50	7.5	1.5
MMSZ4685S	CM	3.6	3.42	3.78	50	7.5	2
MMSZ4686S	CN	3.9	3.7	4.1	50	5	2
MMSZ4687S	CP	4.3	4.09	4.52	50	4	2
MMSZ4688S	CT	4.7	4.47	4.94	50	10	3
MMSZ4689S	CU	5.1	4.85	5.36	50	10	3
MMSZ4690S	CV	5.6	5.32	5.88	50	10	4
MMSZ4691S	CA	6.2	5.89	6.51	50	10	5
MMSZ4692S	CX	6.8	6.46	7.14	50	10	5.1
MMSZ4693S	CY	7.5	7.13	7.88	50	10	5.7
MMSZ4694S	CZ	8.2	7.79	8.61	50	1	6.2
MMSZ4695S	DC	8.7	8.27	9.14	50	1	6.6
MMSZ4696S	DD	9.1	8.65	9.56	50	1	6.9
MMSZ4697S	DE	10	9.5	10.5	50	1	7.6
MMSZ4698S	DF	11	10.45	11.55	50	0.05	8.4
MMSZ4699S	DH	12	11.4	12.6	50	0.05	9.1
MMSZ4700S	DJ	13	12.35	13.65	50	0.05	9.8
MMSZ4701S	DK	14	13.3	14.7	50	0.05	10.6
MMSZ4702S	DM	15	14.25	15.75	50	0.05	11.4
MMSZ4703S	DN	16	15.2	16.8	50	0.05	12.1
MMSZ4704S	DP	17	16.2	17.9	50	0.05	12.9
MMSZ4705S	DT	18	17.1	18.9	50	0.05	13.6
MMSZ4706S	DU	19	18.1	20	50	0.05	14.4
MMSZ4707S	DV	20	19	21	50	0.01	15.2
MMSZ4708S	DA	22	20.9	23.1	50	0.01	16.7
MMSZ4709S	DX	24	22.8	25.2	50	0.01	18.2
MMSZ4710S	DY	25	23.8	26.3	50	0.01	19
MMSZ4711S	EA	27	25.65	28.35	50	0.01	20.4
MMSZ4712S	EC	28	26.6	29.4	50	0.01	21.2
MMSZ4713S	ED	30	28.5	31.5	50	0.01	22.8
MMSZ4714S	EE	33	31.35	34.65	50	0.01	25
MMSZ4715S	EF	36	34.2	37.8	50	0.01	27.3
MMSZ4716S	EH	39	37.05	40.95	50	0.01	29.6
MMSZ4717S	EJ	43	40.85	45.15	50	0.01	32.6

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.

Electrical Characteristics Curves

Fig 1. Zener Characteristics Curve

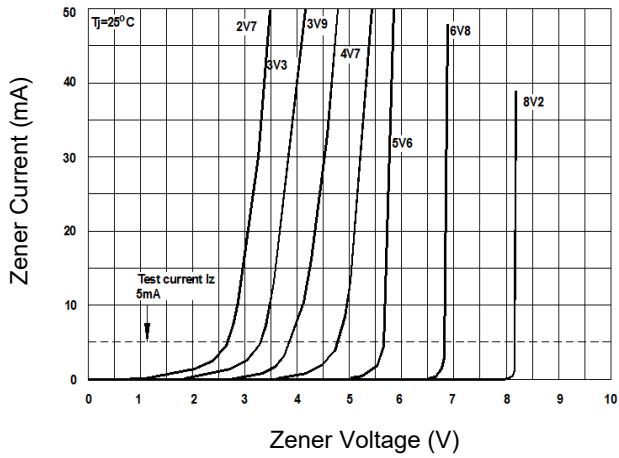


Fig 2. Zener Characteristics Curve

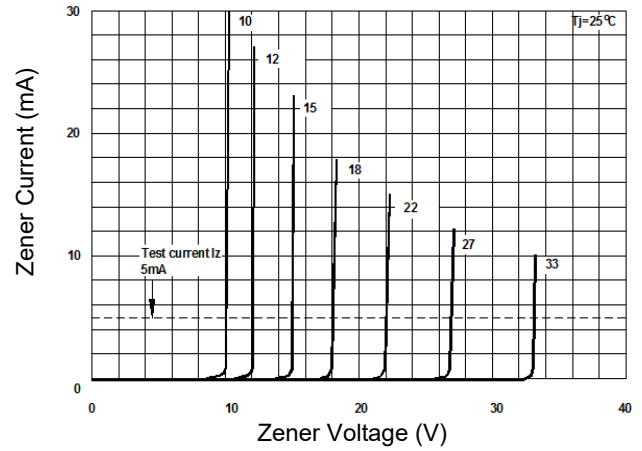
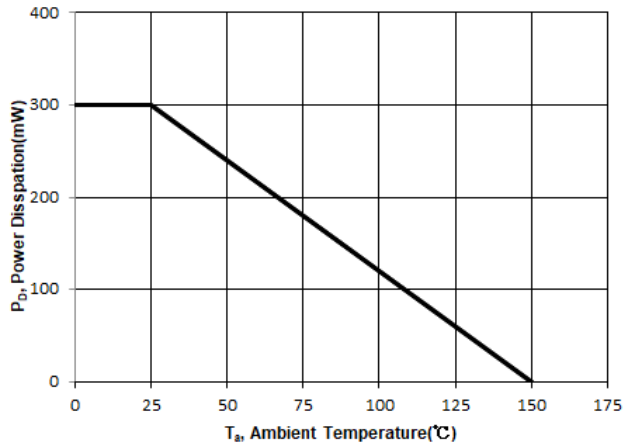


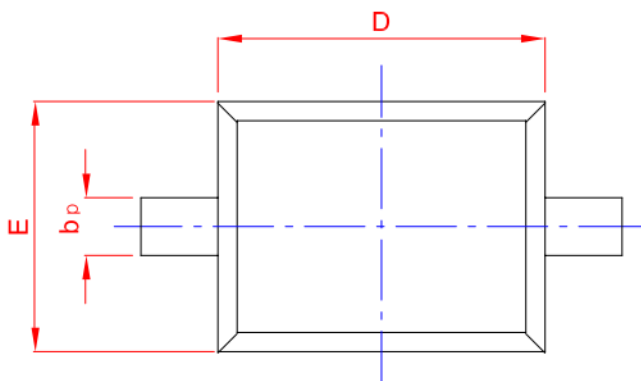
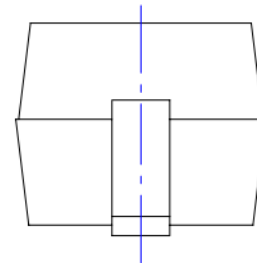
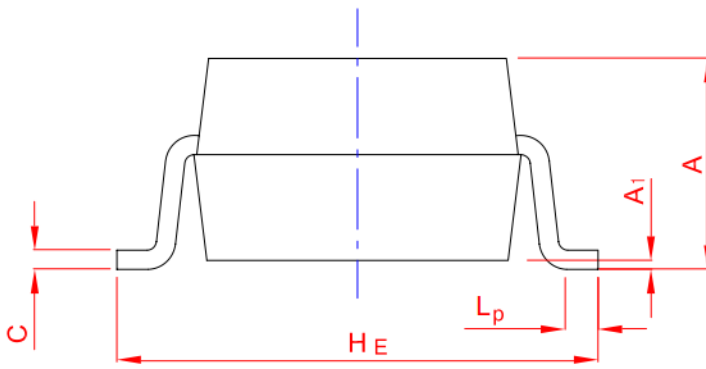
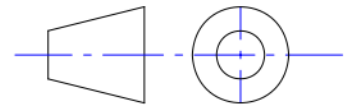
Fig 3. Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20 0.80	0.40 0.25	0.18 0.08	1.80 1.60	1.40 1.15	2.80 2.30	0.10 0.00	0.50 0.10