MM1W3V3 THRU MM1W91

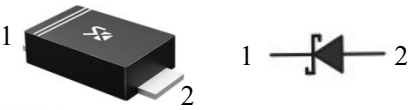
Silicon Planar Zener Diodes

Features

- Total power dissipation: Max. 1W
- Wide zener reverse voltage range 3.3V to 91V
- Small plastic package suitable for surface mounted design

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123FL and symbol

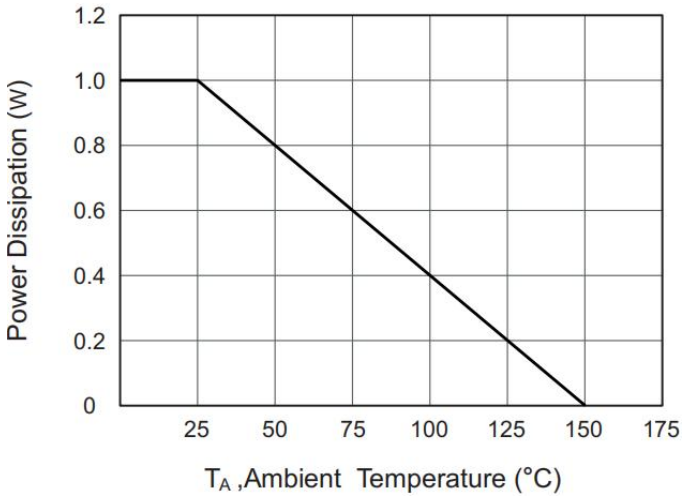
Absolute Maximum Ratings and Characteristics(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	1	W
Forward Voltage at I_F=200mA	V_F	1.2	V
Junction Temperature Range	T_J	-55~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃
Typical Thermal Resistance(1)	$R_{\theta JA}$	105	℃/W
	$R_{\theta JC}$	25	℃/W
	$R_{\theta JL}$	32	℃/W

Note:(1) P.C.B. mounted with 0.2” x 0.2”(5 x 5mm)copper pad areas

Typical Characteristics

Fig.1 Maximum Continuous Power Derating



Electrical Characteristics (T_A=25°C unless otherwise noted, V_F<0.9V@ I_F=10mA)

Type	Marking	Zener Voltage Range(1)				Dynamic Impedance	Reverse Current		Admissible Zener Current
		V_{ZT}(at I_{ZT})			I_{ZT}	Z_{ZT}(at I_{ZT})	I_R	at V_R	
		Min(V)	Nom(V)	Max(V)	(mA)	Max(Ω)	Max(μA)	(V)	I_{ZM}(mA)
MM1W3V3	FHD	3.14	3.3	3.47	75	10	100	1	285
MM1W3V6	FHE	3.42	3.6	3.78	69	10	100	1	263
MM1W3V9	FHF	3.71	3.9	4.1	64	9.0	50	1	243
MM1W4V3	FHG	4.09	4.3	4.52	58	9.0	25	1	219
MM1W4V7	FHJ	4.47	4.7	4.94	53	8.0	10	1	203
MM1W5V1	FHK	4.85	5.1	5.36	49	7.0	10	1	186
MM1W5V6	FHL	5.32	5.6	5.88	45	5.0	10	2	170
MM1W6V2	FHN	5.89	6.2	6.51	41	2.0	10	3	154
MM1W6V8	FHO	6.46	6.8	7.14	37	3.5	10	4	140
MM1W7V5	FHQ	7.13	7.5	7.88	34	4.0	10	5	127
MM1W8V2	FHR	7.79	8.2	8.61	31	4.5	10	6	116
MM1W9V1	FHT	8.65	9.1	9.56	28	5.0	10	7	104
MM1W10	FHU	9.5	10	10.5	25	7.0	10	7	95
MM1W11	FHV	10.45	11	11.55	23	8.0	5	8	86
MM1W12	FHW	11.4	12	12.6	21	9.0	5	9	79
MM1W13	FHX	12.35	13	13.65	19	10	5	10	71
MM1W15	FHZ	14.25	15	15.75	17	14	5	11	63
MM1W16	FJA	15.2	16	16.8	16	16	5	12	58
MM1W18	FJF	17.1	18	18.9	14	20	5	13	52
MM1W19	FJD	18.05	19	19.95	13.5	21	5	14	48
MM1W20	FJG	19	20	21	13	22	5	15	47

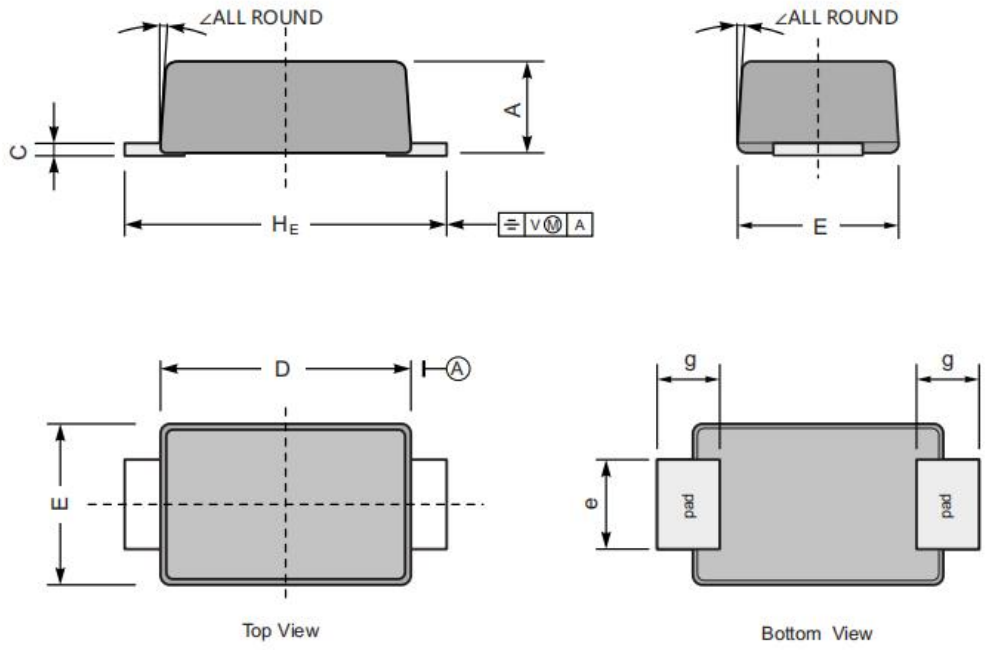
MM1W22	FJK	20.9	22	23.1	12	23	5	17	43
MM1W24	FJL	22.8	24	25.2	11	25	5	18	38
MM1W27	FJN	25.65	27	28.35	9.5	35	5	21	35
MM1W30	FJQ	28.5	30	31.5	8.5	40	5	23	31
MM1W33	FJR	31.35	33	34.65	7.5	45	5	25	28
MM1W36	FJS	34.2	36	37.8	7.0	50	5	27	26
MM1W39	FJT	37.05	39	40.95	6.5	60	5	30	24
MM1W43	FLG	40.85	43	15.15	6.0	70	1	32	22
MM1W47	FLJ	44.65	47	49.35	5.5	80	1	35	20
MM1W51	FLK	48.45	51	53.55	5.0	95	1	38	18
MM1W56	FLL	53.2	56	58.8	4.5	110	1	42	17
MM1W62	FLN	58.9	62	65.1	4.0	125	1	47	15
MM1W68	FLO	64.6	68	71.4	3.7	150	1	52	14
MM1W75	FLQ	71.25	75	78.75	3.3	175	1	56	12
MM1W82	FLR	77.9	82	86.1	3.0	200	1	62	11
MM1W91	FLT	86.45	91	95.55	2.8	250	1	69	10

Note:(1).V_{ZT} is tested with pulses(20ms)

Package Information

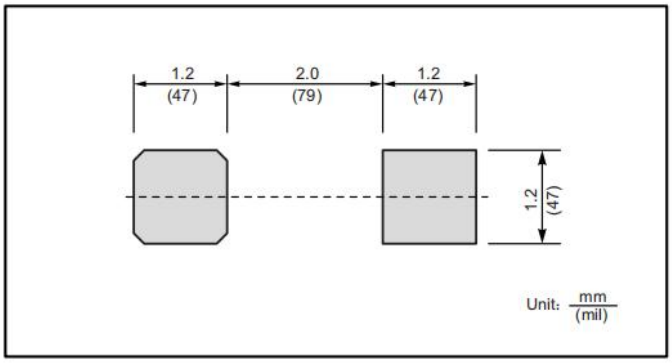
SOD-123FL

Dimensions in mm



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size



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