Prisemi®

PMM1WxxxAHE Series
Zener Voltage Regulators

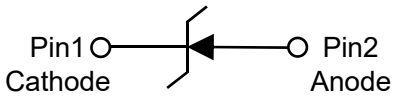
Feature

- Total power dissipation: Max. 1 W.
- Wide Zener reverse voltage range 3.3V to 150V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately ±5%

SOD-123HE

Mechanical Characteristics

- Case: SOD-123HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg / 0.00053oz



Circuit Diagram

Electrical characteristics (T_A=25℃ unless otherwise noted)

Rating	Symbol	Value	Units
Power Dissipation	P_d	1.0	W
Forward Voltage @I_F=200mA	V_F	1.2	V
Typical Thermal Resistance Juncting To Ambient [1)]	$R_{\theta JA}$	80	℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	℃

Notes:
1. Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Typical Characteristics

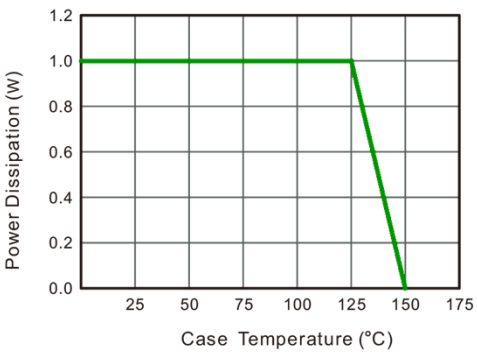


Fig.1 Maximum Continuous Power Derating

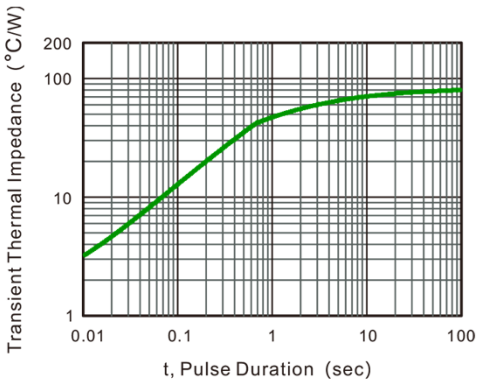


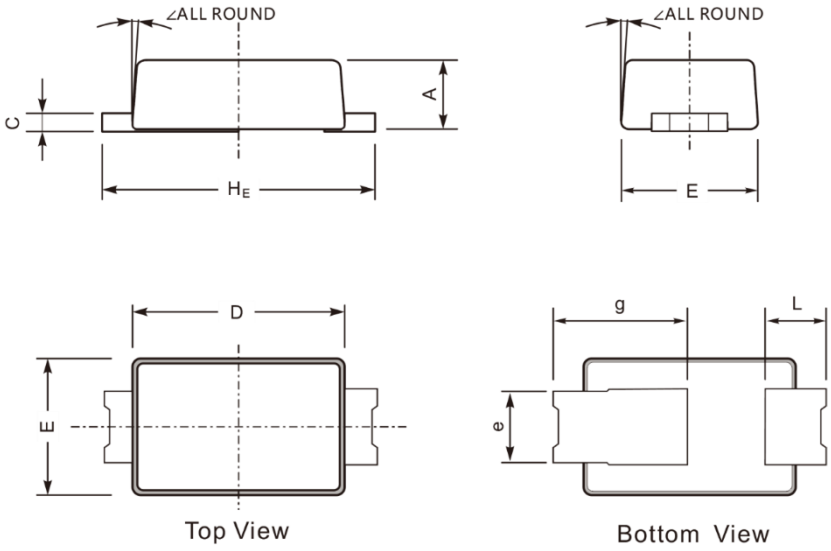
Fig.2 Typical Transient Thermal Impedance

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

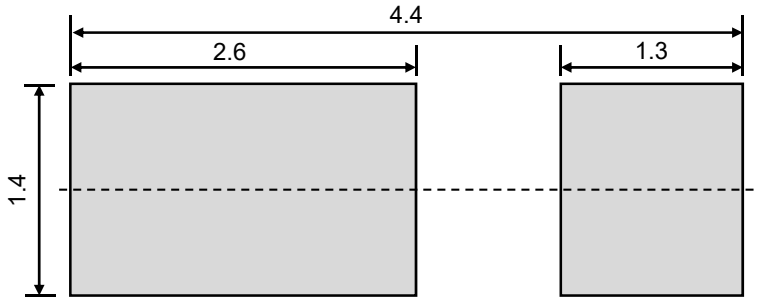
Device	Zener Voltage Range[1)]			I_{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
	V_Z(at I_{ZT})				Z_{ZT}(at I_{ZT})	I_r	V_R	I_{ZM}
	Min(V)	Nom(V)	Max(V)	(mA)	Max(Ω)	Max(uA)	V	mA
PMM1W3V3AHE	3.10	3.3	3.50	75	10	100	1	285
PMM1W3V6AHE	3.40	3.6	3.80	69	10	100	1	263
PMM1W3V9AHE	3.70	3.9	4.10	64	9.0	50	1	243
PMM1W4V3AHE	4.06	4.3	4.56	58	9.0	25	1	219
PMM1W4V7AHE	4.50	4.7	4.93	53	8.0	10	1	203
PMM1W5V1AHE	4.84	5.1	5.36	49	7.0	10	1	186
PMM1W5V6AHE	5.32	5.6	5.92	45	5.0	10	2	170
PMM1W6V2AHE	5.86	6.2	6.51	41	2.0	10	3	154
PMM1W6V8AHE	6.46	6.8	7.18	37	3.5	10	4	140
PMM1W7V5AHE	7.12	7.5	7.88	34	4.0	10	5	127
PMM1W8V2AHE	7.79	8.2	8.67	31	4.5	10	6	116
PMM1W9V1AHE	8.60	9.1	9.59	28	5.0	10	7	104
PMM1W10AHE	9.50	10	10.5	25	7.0	10	7	95
PMM1W11AHE	10.4	11	11.6	23	8.0	5	8	86
PMM1W12AHE	11.4	12	12.6	21	9.0	5	9	79
PMM1W13AHE	12.4	13	14.1	19	10	5	10	71
PMM1W15AHE	13.8	15	15.8	17	14	5	11	63
PMM1W16AHE	15.2	16	17.1	16	16	5	12	58
PMM1W18AHE	16.8	18	19.2	14	20	5	13	52
PMM1W19AHE	18.0	19	20.3	13.5	21	5	14	48
PMM1W20AHE	19.0	20	21.2	13	22	5	15	47
PMM1W22AHE	20.8	22	23.3	12	23	5	17	43
PMM1W24AHE	22.8	24	26.0	11	25	5	18	38
PMM1W27AHE	25.3	27	28.9	9.5	35	5	21	35
PMM1W30AHE	28.2	30	32.0	8.5	40	5	23	31
PMM1W33AHE	31.3	33	34.9	7.5	45	5	25	28
PMM1W36AHE	34.2	36	37.9	7.0	50	5	27	26
PMM1W39AHE	37.2	39	41.5	6.5	60	5	30	24
PMM1W43AHE	40.9	43	45.6	6.0	70	1	32	22
PMM1W47AHE	44.9	47	49.8	5.5	80	1	35	20
PMM1W51AHE	48.6	51	54.0	5.0	95	1	38	18
PMM1W56AHE	53.6	56	58.8	4.5	110	1	42	17
PMM1W62AHE	58.9	62	65.6	4.0	125	1	47	15
PMM1W68AHE	64.6	68	71.7	3.7	150	1	52	14
PMM1W75AHE	71.2	75	78.8	3.3	175	1	56	12
PMM1W82AHE	77.9	82	87.0	3.0	200	1	62	11
PMM1W91AHE	86.0	91	96.0	2.8	250	1	69	10
PMM1W100AHE	95.0	100	105	2.5	350	1	76	9.5
PMM1W110AHE	104	110	116	2.3	450	1	84	8.6
PMM1W120AHE	114	120	127	2.0	550	1	91	7.8
PMM1W135AHE	125	135	142	1.9	700	1	100	7.0
PMM1W150AHE	140	150	157	1.7	900	1	110	6.3

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

Product dimension (SOD-123HE)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.80	1.00	0.031	0.039
C	0.20	0.30	0.008	0.012
D	2.70	2.90	0.106	0.114
E	1.70	1.90	0.067	0.075
e	0.80	1.15	0.031	0.045
g	1.50	2.00	0.059	0.079
L	0.70	1.10	0.028	0.043
H_E	3.50	3.80	0.138	0.150
∠	12°			



Suggested PCB Layout

Unit:mm

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