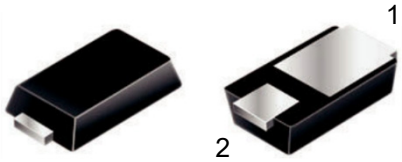
Prisemi®

PMM3ZxxxHS Series

Zener Voltage Regulators

Feature

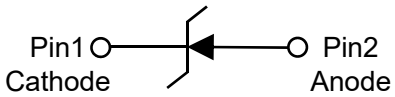
- Total power dissipation: Max. 300mW.
- Wide Zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately±5%



SOD-323HE

Mechanical Characteristics

- Case: SOD-323HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.4mg/0.00019oz



Circuit Diagram

Electrical characteristics (T_A=25℃ unless otherwise noted)

Rating	Symbol	Value	Units
Power Dissipation	P_{tot}	300	mW
Forward Voltage @I_F=10mA	V_F	0.9	V
Typical Thermal Resistance Juncting To Ambient [1)]	$R_{\theta JA}$	350	℃/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

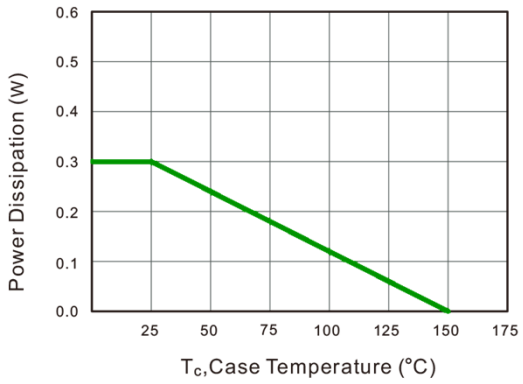


Fig.1 Maximum Continuous Power Derating

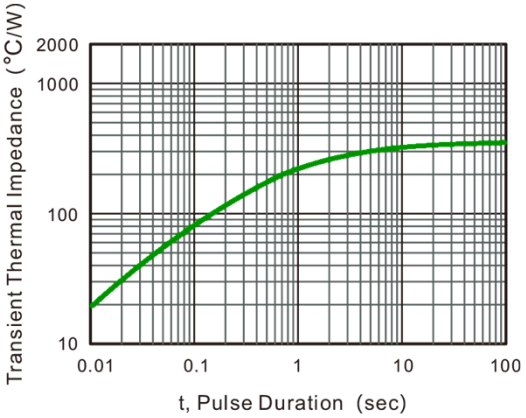


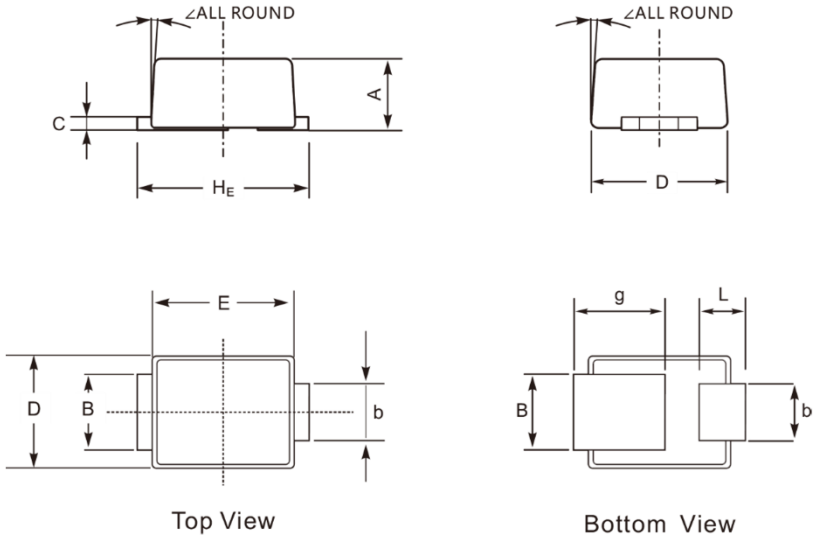
Fig.2 Typical Transient Thermal Impedance

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

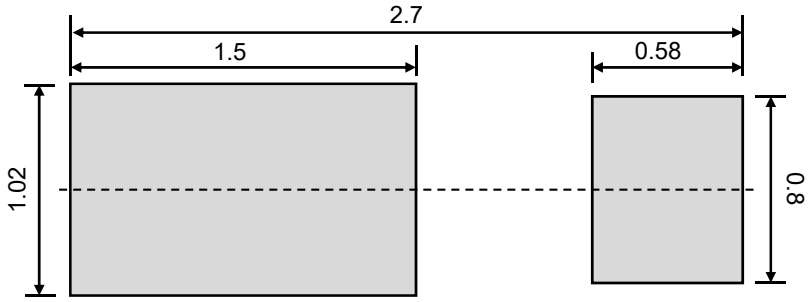
Device	Zener Voltage Range[1]			I_{ZT}	Dynamic Impedance[2]		Reverse Current	
	V_Z(at I_{ZT})				Z_{ZT}(at I_{ZT})	I_{ZT}	I_r	V_R
	Min(V)	Nom(V)	Max(V)	(mA)	Max(Ω)	(mA)	Max(uA)	V
PMM3Z2V0HS	1.8	2.0	2.15	5	100	5	120	0.5
PMM3Z2V2HS	2.08	2.2	2.33	5	100	5	120	0.7
PMM3Z2V4HS	2.28	2.4	2.56	5	100	5	120	1
PMM3Z2V7HS	2.5	2.7	2.9	5	110	5	120	1
PMM3Z3V0HS	2.8	3.0	3.2	5	120	5	50	1
PMM3Z3V3HS	3.1	3.3	3.5	5	130	5	20	1
PMM3Z3V6HS	3.4	3.6	3.8	5	130	5	10	1
PMM3Z3V9HS	3.7	3.9	4.1	5	130	5	5	1
PMM3Z4V3HS	4	4.3	4.6	5	130	5	5	1
PMM3Z4V7HS	4.4	4.7	5	5	130	5	2	1
PMM3Z5V1HS	4.8	5.1	5.4	5	130	5	2	1.5
PMM3Z5V6HS	5.2	5.6	6	5	80	5	1	2.5
PMM3Z6V2HS	5.8	6.2	6.6	5	50	5	1	3
PMM3Z6V8HS	6.4	6.8	7.2	5	30	5	0.5	3.5
PMM3Z7V5HS	7	7.5	7.9	5	30	5	0.5	4
PMM3Z8V2HS	7.7	8.2	8.7	5	30	5	0.5	5
PMM3Z9V1HS	8.5	9.1	9.6	5	30	5	0.5	6
PMM3Z10HS	9.4	10	10.3	5	30	5	0.1	7
PMM3Z11HS	10.4	11	11.6	5	30	5	0.1	8
PMM3Z12HS	11.4	12	12.7	5	35	5	0.1	9
PMM3Z13HS	12.4	13	14.1	5	35	5	0.1	10
PMM3Z15HS	13.8	15	15.6	5	40	5	0.1	11
PMM3Z16HS	15.3	16	17.1	5	40	5	0.1	12
PMM3Z18HS	16.8	18	19.1	5	45	5	0.1	13
PMM3Z20HS	18.8	20	21.2	5	50	5	0.1	15
PMM3Z22HS	20.8	22	23.3	5	55	5	0.1	17
PMM3Z24HS	22.8	24	25.6	5	60	5	0.1	19
PMM3Z27HS	25.1	27	28.9	5	70	2	0.1	21
PMM3Z30HS	28	30	32	5	80	2	0.1	23
PMM3Z33HS	31	33	35	5	80	2	0.1	25
PMM3Z36HS	34	36	38	5	90	2	0.1	27
PMM3Z39HS	37	39	41	2.5	100	2	2	30
PMM3Z43HS	40	43	46	2.5	130	2	2	33
PMM3Z47HS	44	47	50	2.5	150	2	2	36
PMM3Z51HS	48	51	54	2.5	180	2	1	39
PMM3Z56HS	52	56	60	2.5	180	2	1	43
PMM3Z62HS	58	62	66	2.5	200	2	0.2	47
PMM3Z68HS	64	68	72	2.5	250	2	0.2	52
PMM3Z75HS	70	75	79	2.5	300	2	0.2	57

Note
1. V_{ZT} is tested with pulses (20 ms)
2. Z_{ZT} is measured at IZ by given a very small A.C. current signal

Product dimension (SOD-323HE)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.57	0.77	0.022	0.030
b	0.45	0.75	0.018	0.030
B	0.65	0.95	0.026	0.037
C	0.10	0.20	0.004	0.008
D	1.25	1.45	0.049	0.057
E	2.10	2.30	0.083	0.091
H_E	2.30	2.70	0.091	0.106
g	1.10	1.55	0.043	0.061
L	0.25	0.50	0.010	0.020
∠	12°			



Suggested PCB Layout

Unit:mm

IMPORTANT NOTICE

Prisemi® and Prisemi® are registered trademarks of **Prisemi Electronics Co., Ltd (**Prisemi**),** Prisemi reserves the right to make changes without further notice to any products herein. Prisemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Prisemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. “Typical” parameters which may be provided in Prisemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts. Prisemi does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices, Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Website: http://www.prisemi.com
For additional information, please contact your local Sales Representative.