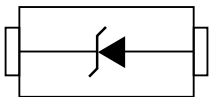
Description

The PZ1D4V2H is packaged in a SOD-123 surface mount package that has a power dissipation of 500mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium.



Feature

- Standard zener breakdown voltage range 5.1V
- SOD-123 package
- Steady state power rating of 500mW
- ESD rating of class 3(>16kV)per human body model
- RoHS compliant transient

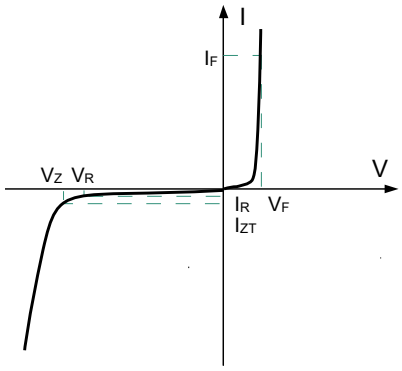
Applications

- Cellular phones
- Hand held portables
- High density PC boards

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness：≤3mil

Electronics Parameter



Electrical characteristics per line@(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Zener Voltage	V_Z	I_{ZT} = 5mA		5.1		V
Maximum Zener Impedance	Z_{ZT}	I_{ZT} = 5mA	-	-	55	Ω
Maximum Zener Impedance	Z_{ZK}	I_{ZK} =0.5mA	-	-	500	Ω
Reverse Leakage Current	I_R	V_R =4.2V	-	-	20	μA
Forward Voltage	V_F	I_F = 100mA	-	-	1.25	V
Max.Capacitance	C	V_R=4V, f = 1MHz	-	-	300	pF

Absolute maximum rating@25℃

Rating	Symbol	Value	Units
Total Device Dissipation FR-5 Board(Note 1)	P_D	500	mW
Thermal Resistance,Juction-to-Ambient	$R_{\Theta JA}$	340	℃/W
Storage Temperature	T_J,T_{STG}	-65 to +150	℃

Typical Characteristics

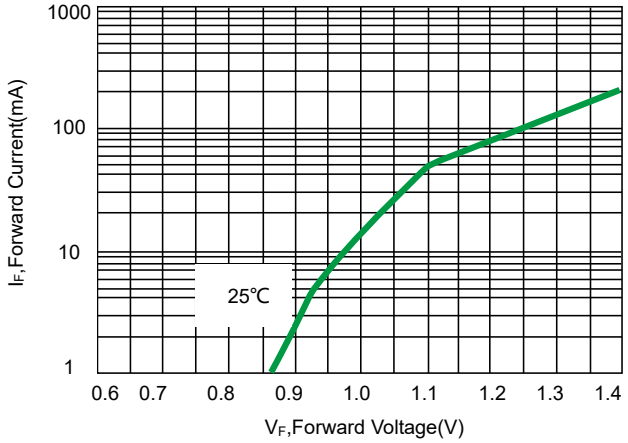


Fig 1.Typical Forward Voltage

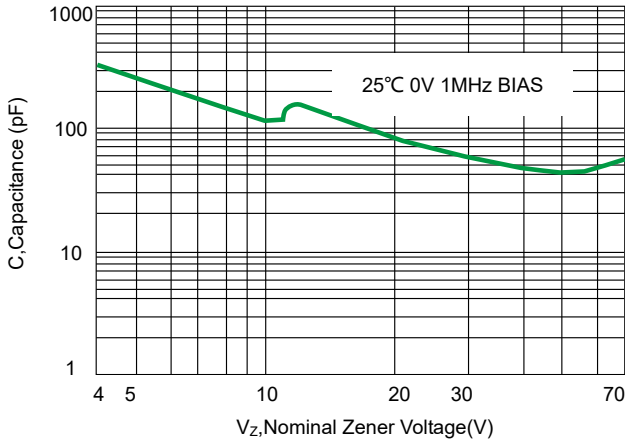


Fig 2. Typical Capacitance

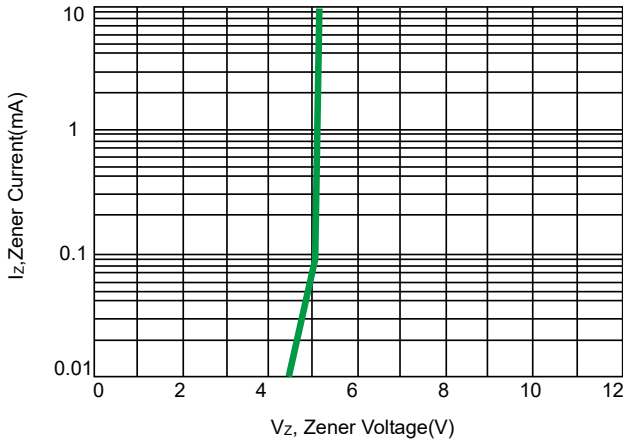


Fig 3.Zener Voltage versus Zener Current

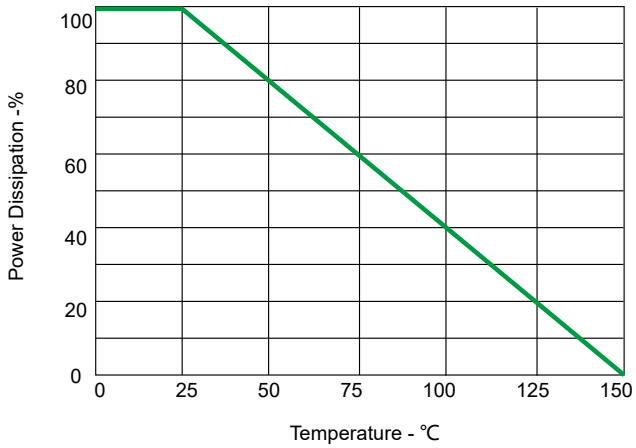
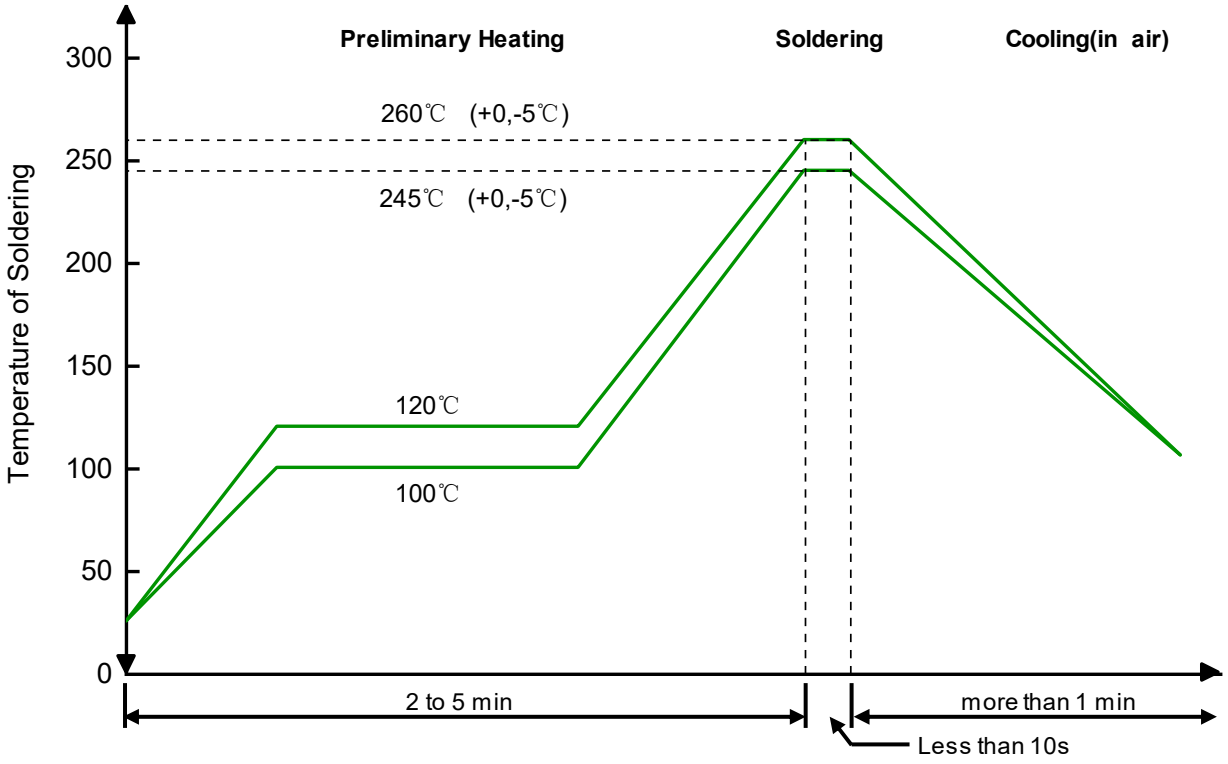


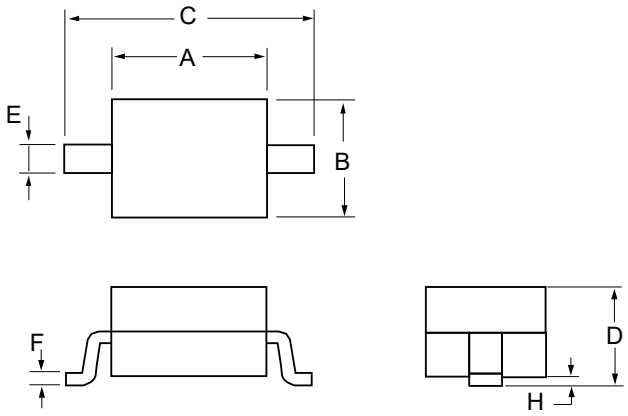
Fig 4.Steady State Power Detating

Solder Reflow Recommendation

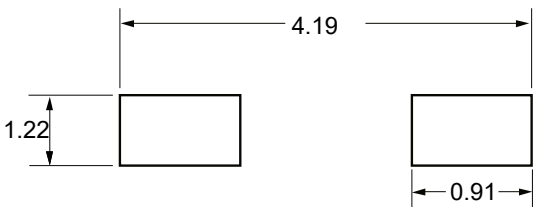


Remark: Pb free for 260℃; Pb for 245℃.

Product dimension (SOD-123)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.100	0.112	2.54	2.84
B	0.055	0.071	1.40	1.80
C	0.140	0.152	3.56	3.86
D	0.037	0.053	0.94	1.35
E	0.020	0.028	0.51	0.71
F	-	0.006	-	0.15
H	0.000	0.004	0.00	0.10

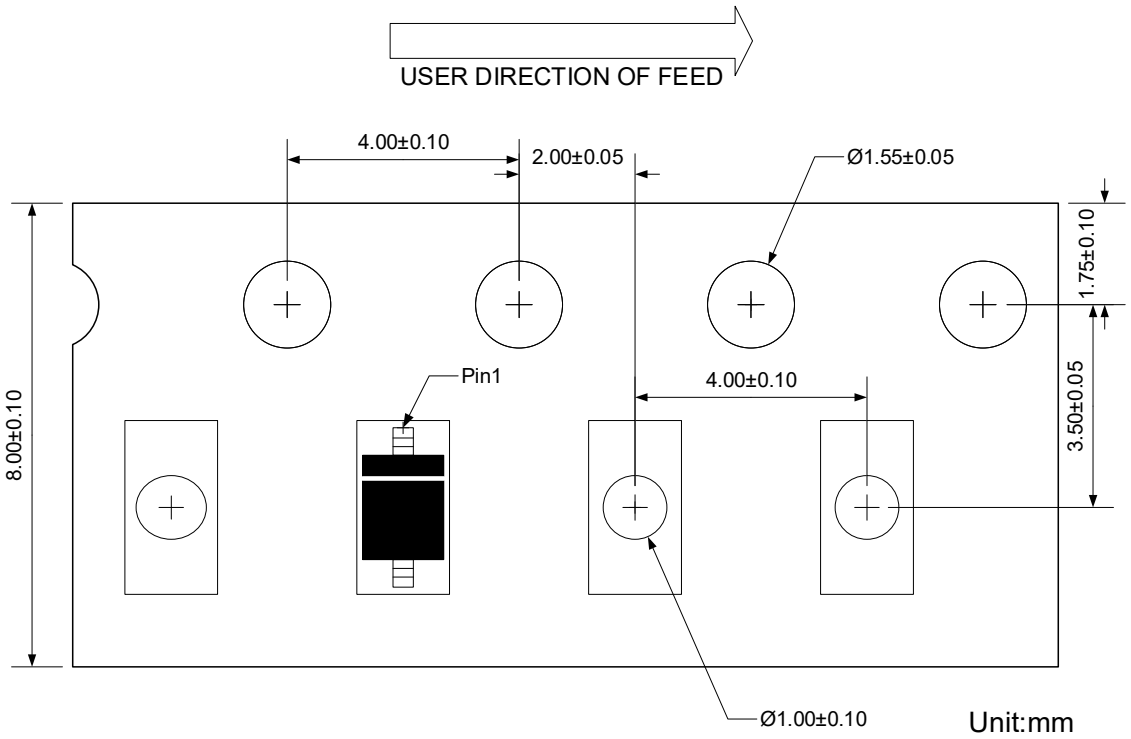


Unit:mm

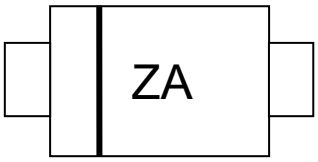
Ordering information

Package	Reel	Shipping
SOD-123	7"	3000 / Tape & Reel

Load with information



Marking information



IMPORTANT NOTICE

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.

©Copyright 2009, Prisemi Electronics

Prisemi® is a registered trademark of Prisemi Electronics.

All rights are reserved.