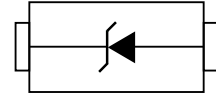


Description

The PZ3D5V1U is packaged in a SOD-323 surface mount package that has a power dissipation of 200mW. 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-323 package
- Steady state power rating of 200mW
- ESD rating of class 3(>16kV)per human body model
- RoHS compliant transient

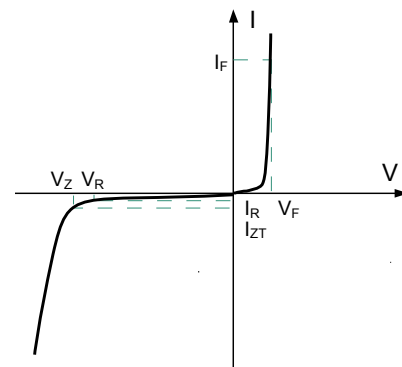
Applications

- 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°C
- 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	$I_{ZT} = 5mA$	4.8	5.1	5.4	V
Maximum Zener Impedance	Z_{ZT}	$I_{ZT} = 5mA$	-	-	60	Ω
Maximum Zener Impedance	Z_{ZK}	$I_{ZK} = 0.5mA$	-	-	500	Ω
Reverse Leakage Current	I_R	$V_R = 3V$	-	-	100	μA
Forward Voltage	V_F	$I_F = 10mA$	-	0.8	-	V
Capacitance	C	$V_R = 0V, f = 1MHz$	-	90	-	pF

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Total Device Dissipation FR-5 Board	P_D	200	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	635	°C/W
Storage Temperature	T_J, T_{STG}	-65 to +150	°C

Typical Characteristics

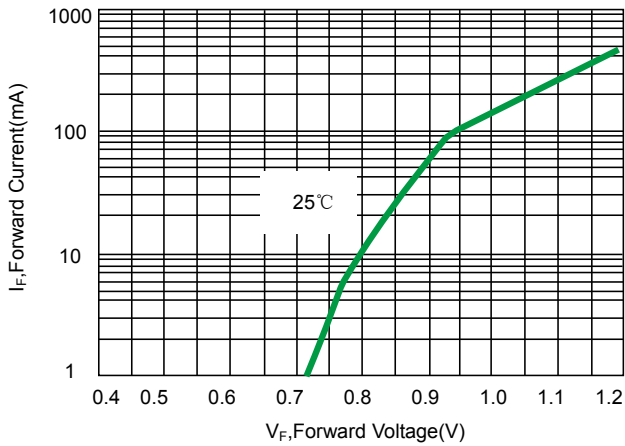


Fig 1. Typical Forward Voltage

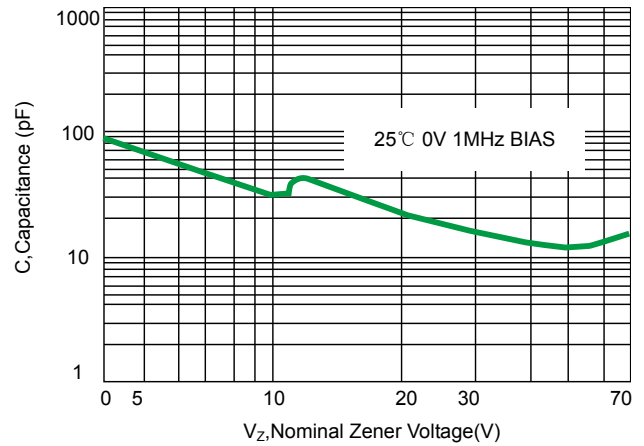


Fig 2. Typical Capacitance

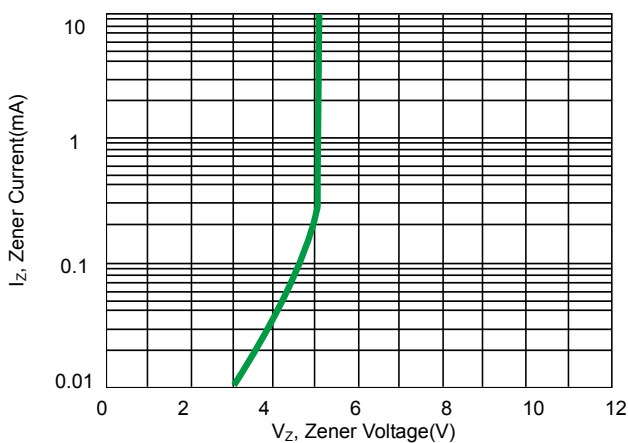


Fig 3. Zener Voltage versus Zener Current

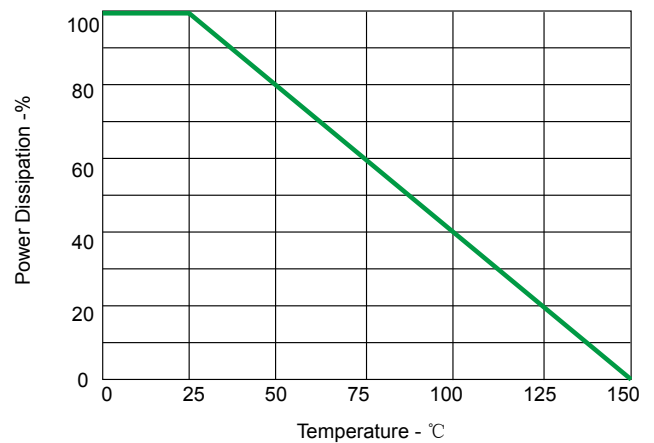
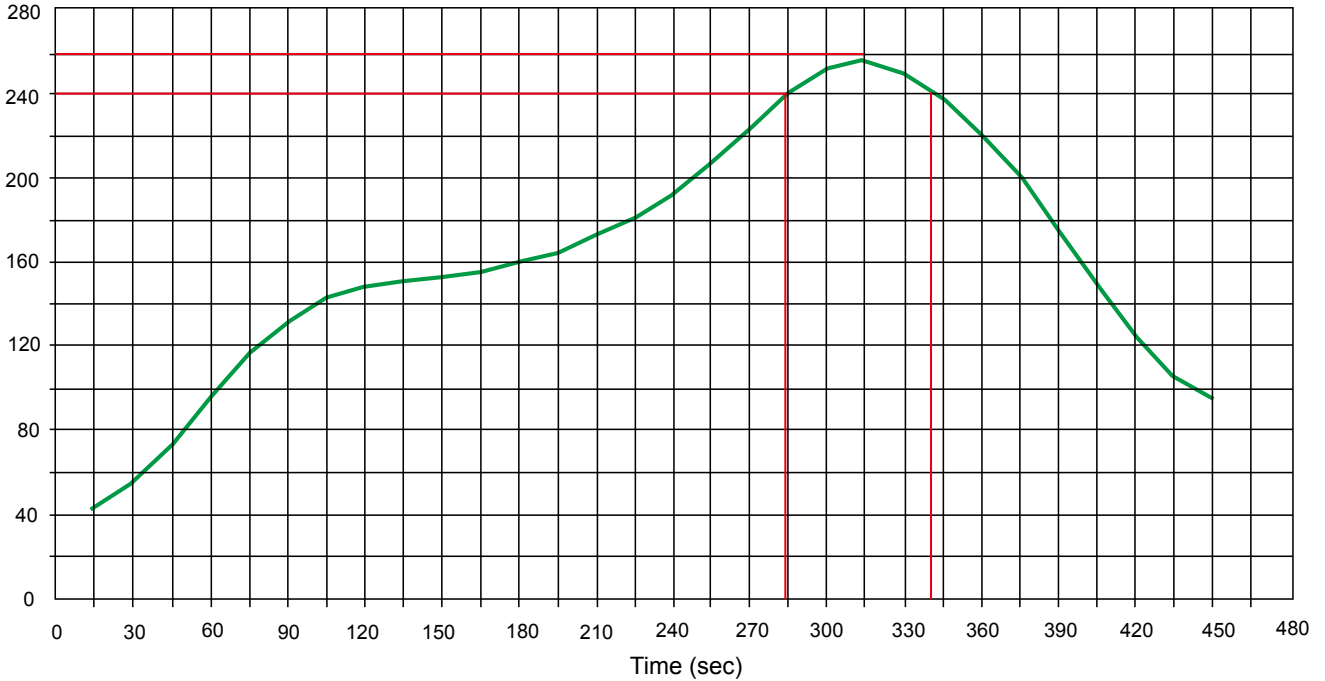


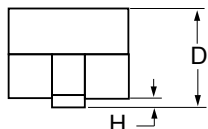
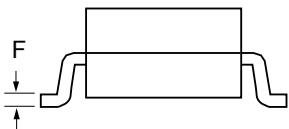
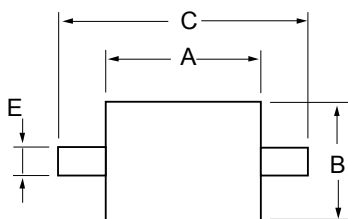
Fig 4. Steady State Power Detating

Solder Reflow Recommendation

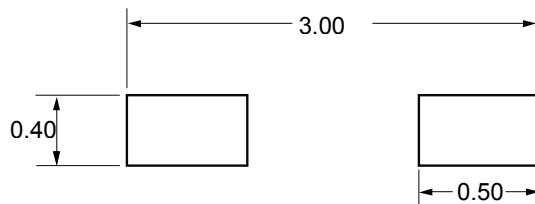
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



Product dimension (SOD-323)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.063	0.075	1.60	1.90
B	0.045	0.057	1.15	1.45
C	0.090	0.106	2.30	2.70
D	0.031	0.043	0.80	1.10
E	0.010	0.01	0.25	0.40
F	0.004	0.007	0.09	0.18
H	0.000	0.004	0.00	0.10




Unit:mm

Ordering information

Device	Package	Shipping
PZ3D5V1U	SOD-323 (Pb-Free)	3000 / Tape & Reel


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.