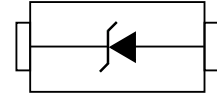


Description

The PZ3D5V1H is packaged in a SOD-323 surface mount package that has a power dissipation of 600mW. 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 600mW
- ESD rating of class 3(>16kV)per human body model
- RoHS compliant transient

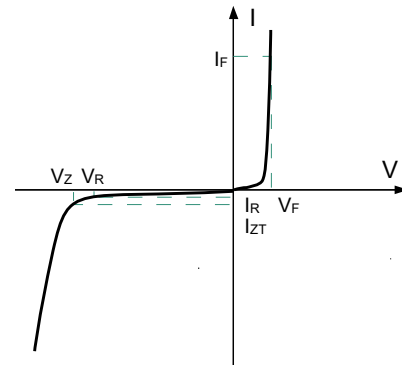
Applications

- 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
- 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	5.5	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 =4.35V	-	-	5	μA
Forward Voltage	V _F	I _F = 100mA	-	-	1.25	V
Clamping Voltage	V _C	I _{PP} = 18A t _P = 8/20μs		10	12	V
Maximum Reverse Peak Pulse Current	I _{PP_max}	t _P = 8/20μs		18	20	A
Peak Pulse Power (t _P = 8/20μS)	P _{PP}	V _{C_max} *I _{PP_max}		180	200	W
Max.Capacitance	C	V _R =4V, f = 1MHz	-	-	300	pF

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	210	°C/W
Storage Temperature	T_J, T_{STG}	-65 to +150	°C

Typical Characteristics

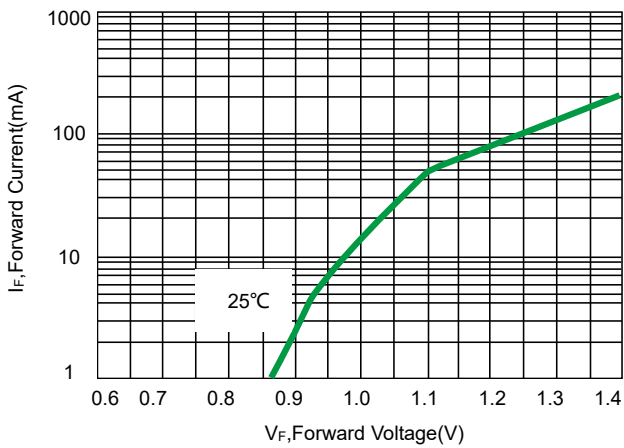


Fig 1. Typical Forward Voltage

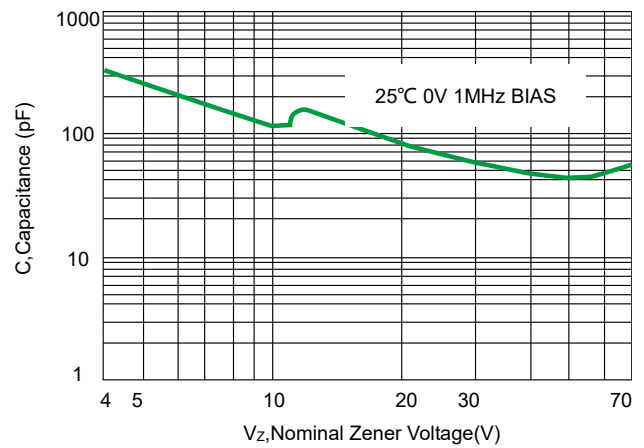


Fig 2. Typical Capacitance

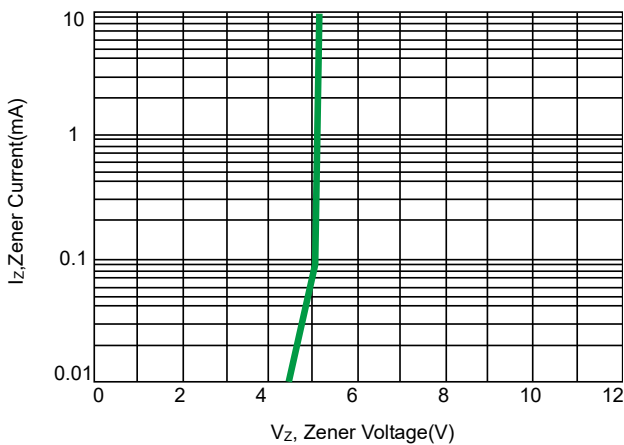


Fig 3. Zener Voltage versus Zener Current

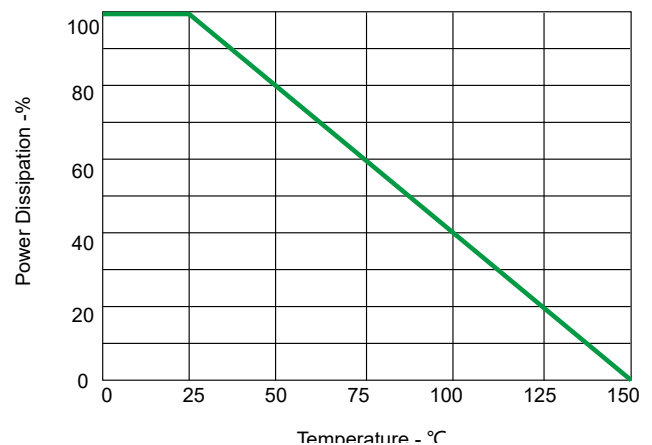
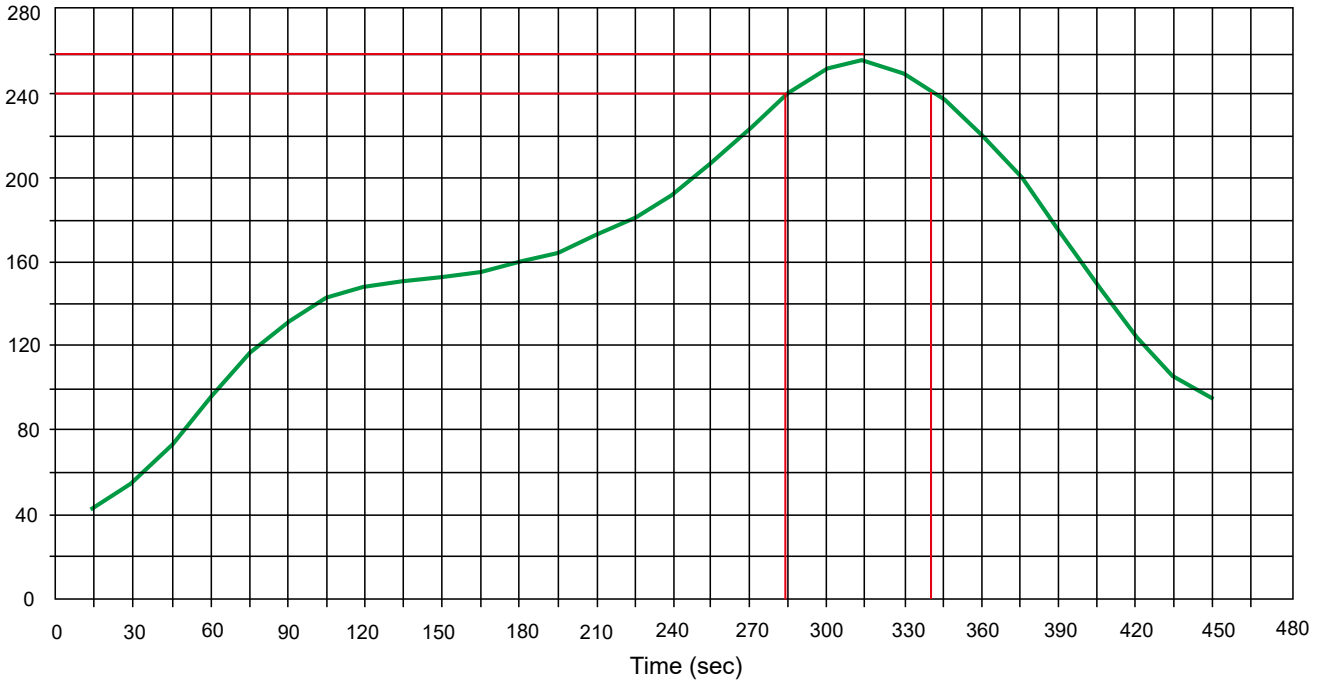


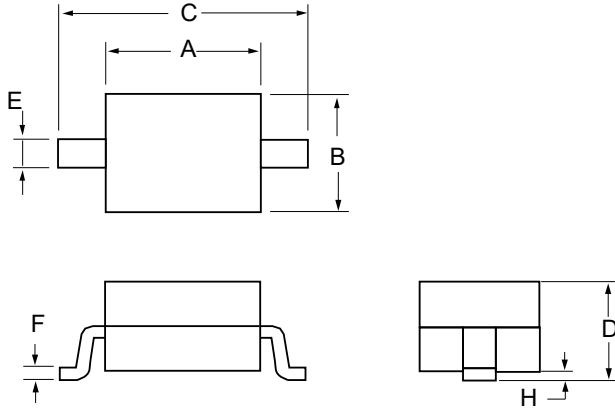
Fig 4. Steady State Power Detating

Solder Reflow Recommendation

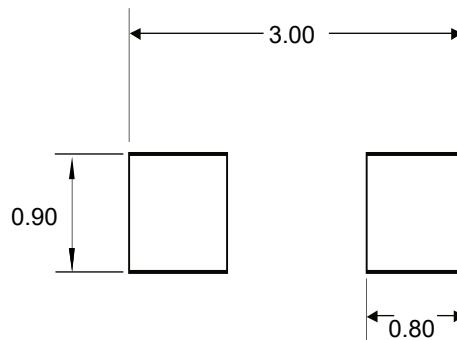
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



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	1.00
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



Suggested PCB Layout

Unit:mm


Marking information



Ordering information

Device	Package	Reel	Shipping
PZ3D5V1H	SOD-323 (Pb-Free)	7"	3000 / Tape & Reel


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