



BZD27C3V6P~BZD27C75P

VOLTAGE REGULATOR DIODES

VOLTAGE 3.6 to 75 Volts **POWER** 800 mW

SOD-123FL

Unit : inch(mm)

FEATURES

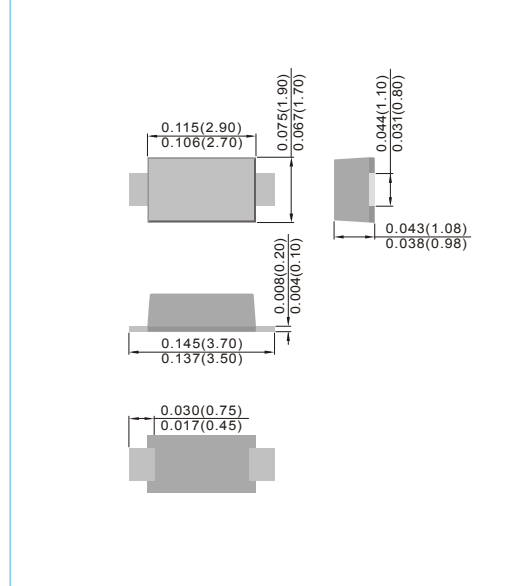
- Silicon Planar Zener Diode
- Low profile surface-mount package
- Zener and surge current specification
- Low leakage current
- Excellent stability
- High temperature soldering : 260 °C/10 sec. at terminals
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOD-123FL

Terminals : Solderable per MIL-STD-750,Method 2026

Approx Weight: 0.0172 grams



ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Test condition	Symbol	Value	Units
Power dissipation	$T_L=80^{\circ}\text{C}$	P_{TOT}	2.3	W
	$T_A=25^{\circ}\text{C}$	P_{TOT}	0.8 (note 1)	
Non-repetitive peak pulse power dissipation	100 μs square pulse(note 2)	P_{ZSM}	300	W
	10/1000 μs waveform (BZD27-C7V5P to BZD27-C75P)	P_{RSM}	150	

THERMAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		$R_{\theta JA}$	180	K/W
Thermal resistance junction to lead		$R_{\theta JL}$	30	K/W
Maximum junction temperature		T_J	150	$^{\circ}\text{C}$
Storage temperature range		T_s	-55 to + 150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

PARAMETER	Test condition	Symbol	Min	Typ	Max	Units
Forward voltage	$I_F=0.2\text{A}$	V_F			1.2	V

NOTES:

1. Mounted on epoxy-glass PCB with 3X3 mm Cu pads (>40 μm thick)
2. $T_J=25^{\circ}\text{C}$ prior to surge



BZD27C3V6P~BZD27C75P

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V _{Z@I_{ZT}}			Z _{ZT@I_{ZT}}		Z _{ZK@I_{ZK}}		I _{R@V_R}		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
BZD27C3V6P	3.6	3.42	3.78	8	100	400	1	100	1	3V6
BZD27C3V9P	3.9	3.71	4.10	8	100	400	1	50	1	3V9
BZD27C4V3P	4.3	4.09	4.52	7	100	400	1	25	1	4V3
BZD27C4V7P	4.7	4.47	4.94	7	100	500	1	10	1	4V7
BZD27C5V1P	5.1	4.85	5.36	6	100	550	1	5	1	5V1
BZD27C5V6P	5.6	5.32	5.88	4	100	600	1	10	2	5V6
BZD27C6V0P	6.0	5.70	6.30	3	100	600	1	8	2	6V1
BZD27C6V2P	6.2	5.89	6.51	3	100	700	1	5	2	6V2
BZD27C6V8P	6.8	6.46	7.14	3	100	700	1	10	3	6V8
BZD27C7V5P	7.5	7.13	7.88	2	100	700	0.5	50	3	7V5
BZD27C8V2P	8.2	7.79	8.61	2	100	700	0.5	10	3	8V2
BZD27C8V7P	8.7	8.27	9.14	3	50	700	0.5	10	4	8V7
BZD27C9V1P	9.1	8.65	9.56	4	50	700	0.5	10	5	9V1
BZD27C10P	10	9.50	10.50	4	50	700	0.25	7	7.5	10P
BZD27C11P	11	10.45	11.55	7	50	700	0.25	4	8.2	11P
BZD27C12P	12	11.40	12.60	7	50	700	0.25	3	9.1	12P
BZD27C13P	13	12.35	13.65	10	50	700	0.25	2	10	13P
BZD27C14P	14	13.30	14.70	10	50	700	0.25	2	11	14P
BZD27C15P	15	14.25	15.75	10	50	700	0.25	1	11	15P
BZD27C16P	16	15.20	16.80	15	25	700	0.25	1	12	16P
BZD27C17P	17	16.15	17.85	15	25	750	0.25	1	13	17P
BZD27C18P	18	17.10	18.90	15	25	750	0.25	1	13	18P
BZD27C19P	19	18.05	19.95	15	25	750	0.25	1	14	19P
BZD27C20P	20	19.00	21.0	15	25	750	0.25	1	15	20P
BZD27C22P	22	20.90	23.10	15	25	750	0.25	1	16	22P
BZD27C24P	24	22.80	25.20	15	25	750	0.25	1	18	24P
BZD27C25P	25	23.75	26.25	15	25	750	0.25	1	19	25P
BZD27C27P	27	25.65	28.35	15	25	1000	0.25	1	20	27P
BZD27C28P	28	26.60	29.40	15	25	1000	0.25	1	21	28P
BZD27C30P	30	28.50	31.50	15	25	1000	0.25	1	22	30P
BZD27C33P	33	31.35	34.65	15	25	1000	0.25	1	24	33P
BZD27C36P	36	34.20	37.80	40	10	1000	0.25	1	27	36P
BZD27C39P	39	37.05	40.95	40	10	1000	0.25	1	30	39P
BZD27C43P	43	40.85	45.15	45	10	1500	0.25	1	33	43P
BZD27C47P	47	44.65	49.35	45	10	1500	0.25	1	36	47P
BZD27C51P	51	48.45	53.55	60	10	1500	0.25	1	39	51P
BZD27C56P	56	53.2	58.8	60	10	2000	0.25	1	43	56P
BZD27C62P	62	58.9	65.1	80	10	2000	0.25	1	47	62P
BZD27C68P	68	64.6	71.4	80	10	2000	0.25	1	51	68P
BZD27C75P	75	71.25	78.75	100	10	2000	0.25	1	56	75P



BZD27C3V6P~BZD27C75P

Typical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

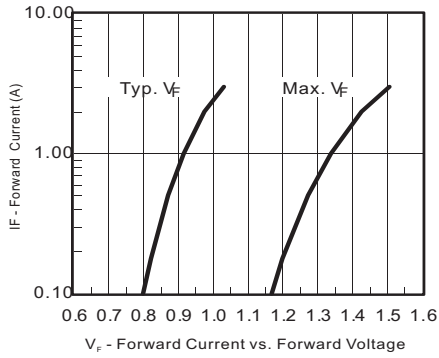


Figure1. Forward Current vs. Forward Voltage

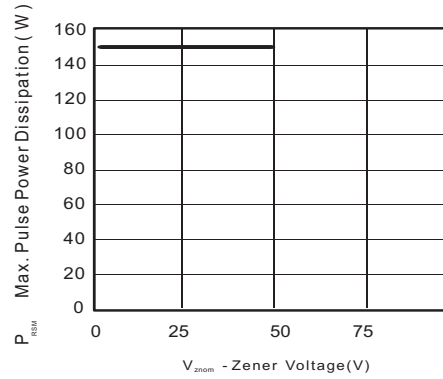


Figure4. Maximum Pulse Power Dissipation vs. Zener Voltage

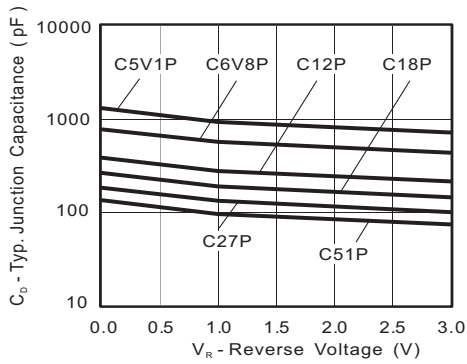


Figure2. Typ. Diode Capacitance vs. Reverse Voltage

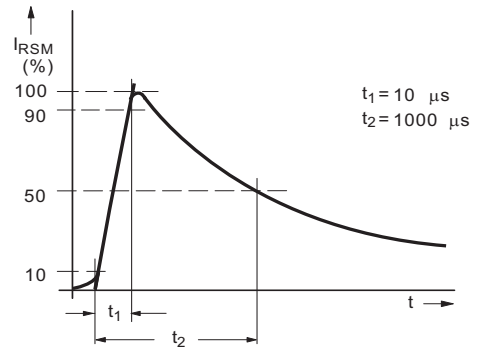


Figure5. Non-Repetitive Peak Reverse Current Pulse Definition

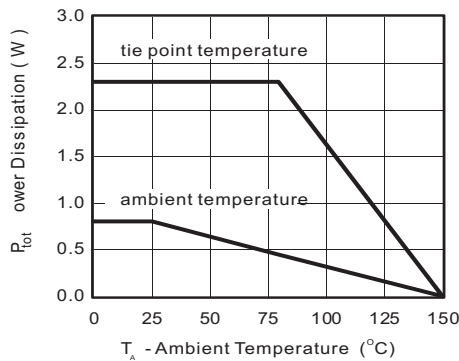
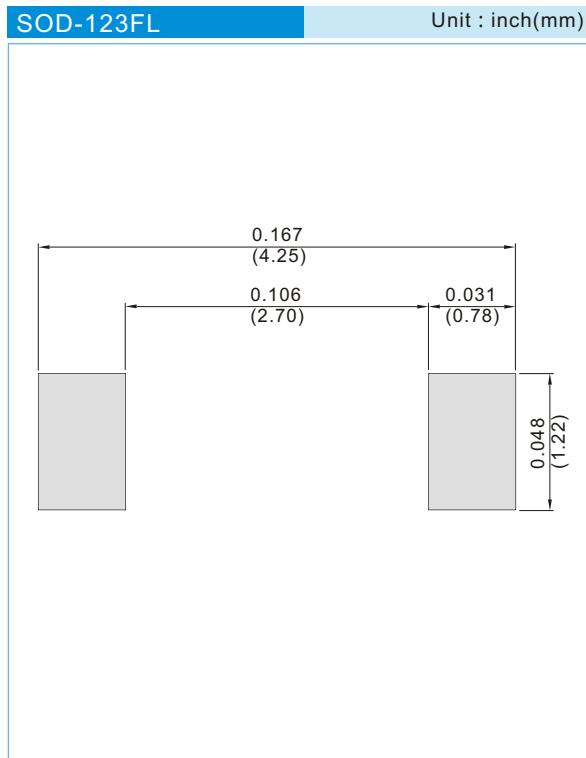


Figure3. Power Dissipation vs. Ambient Temperature



BZD27C3V6P~BZD27C75P

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2011

to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.