



BZD27C12P-AU

VOLTAGE REGULATOR DIODES

VOLTAGE 12 Volts **POWER** 800 mW

SOD-123FL Unit : inch(mm)

FEATURES

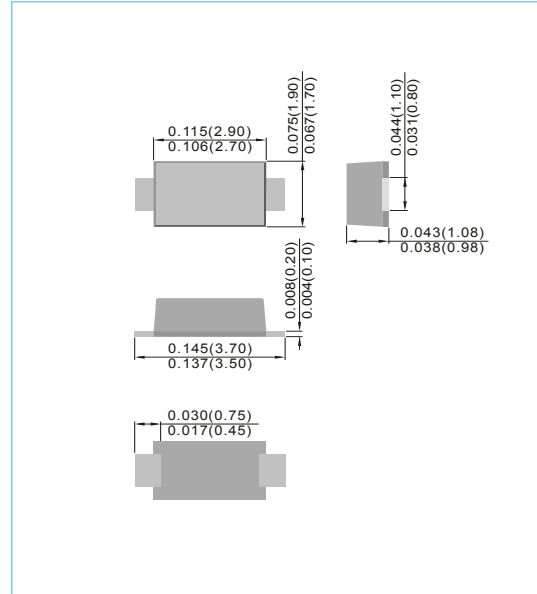
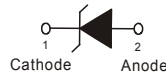
- Silicon Planar Zener Diode
- Low profile surface-mount package
- Zener and surge current specification
- Low leakage current
- Excellent stability
- High temperature soldering : 260 °C/10 sec. at terminals
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified

MECHANICAL DATA

Case: SOD-123FL

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

Approx Weight: 0.0168 grams



ABSOLUTE MAXIMUM RATINGS (T_A=25°C , unless otherwise specified)

Parameter	Test condition	Symbol	Value	Units
Power dissipation	T _L =80 °C	P _{TOT}	2.3	W
	T _A =25 °C	P _{TOT}	0.8 (note 1)	W
Non-repetitive peak pulse power dissipation	100 μs square pulse(note 2)	P _{ZSM}	300	W
	10/1000 μs waveform (BZD27C12P-AU)	P _{RSM}	150	W

THERMAL CHARACTERISTICS (T_A=25°C , unless otherwise noted)

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R _{θJA}	180	K/W
Thermal resistance junction to lead		R _{θJL}	30	K/W
Maximum junction temperature		T _J	150	°C
Storage temperature range		T _S	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS

PARAMETER	Test condition	Symbol	Min	Typ	Max	Units
Forward voltage	I _F =0.2A	V _F			1.2	V

NOTES:

1. Mounted on epoxy-glass PCB with 3X3 mm Cu pads (>40μm thick)
2. T_J=25°C prior to surge



BZD27C12P-AU

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	
BZD27C12P-AU	12	11.40	12.60	7	50	700	0.25	3	9.1	12P

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

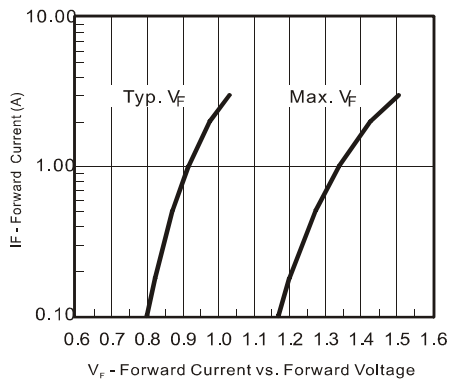


Figure1. Forward Current vs. Forward Voltage

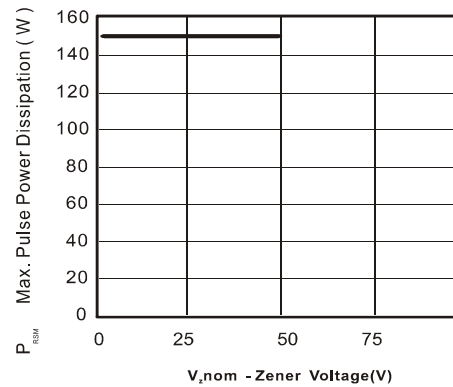


Figure4. Maximum Pulse Power Dissipation vs. Zener Voltage

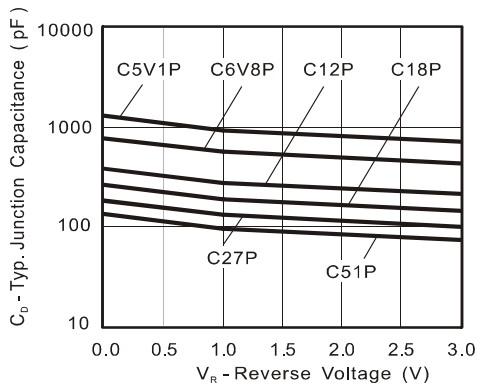


Figure2. Typ. Diode Capacitance vs. Reverse Voltage

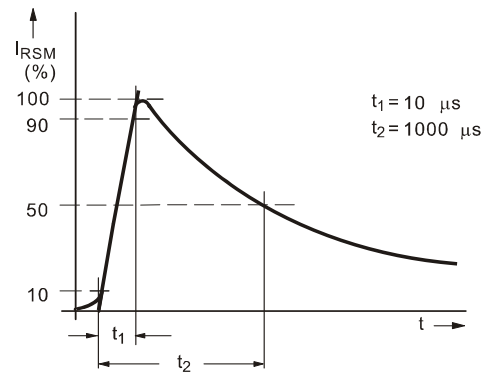


Figure5. Non-Repetitive Peak Reverse Current Definition

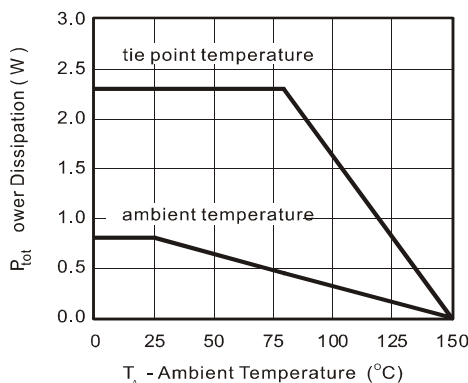
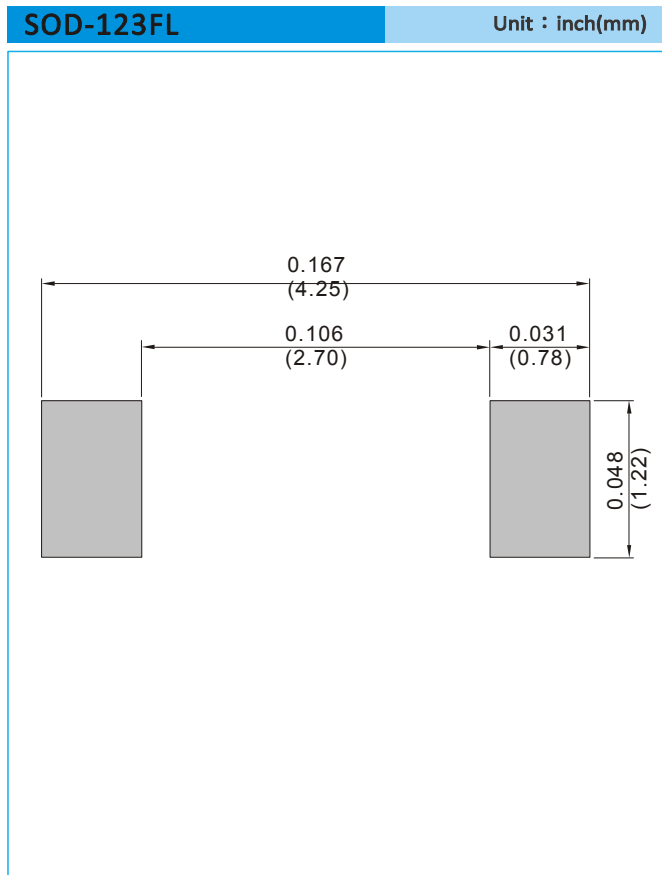


Figure3. Power Dissipation vs. Ambient Temperature



BZD27C12P-AU

MOUNTING PAD LAYOUT



ORDER INFORMATION

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



BZD27C12P-AU

Part No_packing code_Version

BZD27C12P-AU_R1_000A1

BZD27C12P-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



BZD27C12P-AU

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