



# BAS116WS

## SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODE

**VOLTAGE** 100 Volt      **POWER** 200mWatt

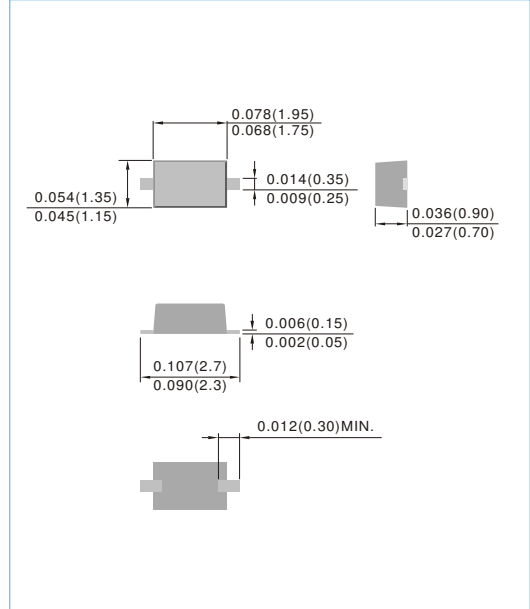
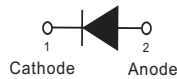
**SOD-323**      Unit : inch(mm)

### FEATURES

- Surface mount package ideally suited for automatic insertion.
- Very low leakage current. 2nA typical at VR=75V.
- Low capacitance. 2pF max at VR=0V, f=1MHz
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case : SOD-323 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx weight : 0.00014 ounces, 0.0041 grams
- Marking : PA



### ABSOLUTE RATINGS (each diode)

Parameter	Symbol	Value	Units
Reverse Voltage	V <sub>R</sub>	75	V
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Continuous Forward Current	I <sub>F</sub>	0.2	A
Non-repetitive Peak Forward Surge Current at t=1μs	I <sub>FSM</sub>	4	A

### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P <sub>TOT</sub>	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	-55 to 150	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C

NOTE :

1. FR-5 Board = 1 x 0.75 x 0.062 in.



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## ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	75	-	-	V
Reverse Current	$I_R$	$V_R=75V$ $V_R=75V, T_J=150^\circ C$	-	2 8	5 80	nA
Forward Voltage	$V_F$	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$	-	-	0.9 1 1.1 1.25	V
Total Capacitance	$C_T$	$V_R=0V, f=1MHz$	-	-	2	pF
Reverse Recovery Time	$T_{RR}$	$I_F=I_R=10mA, R_L=100\Omega$	-	-	3	$\mu s$

### CHARACTERISTIC CURVES (each diode)

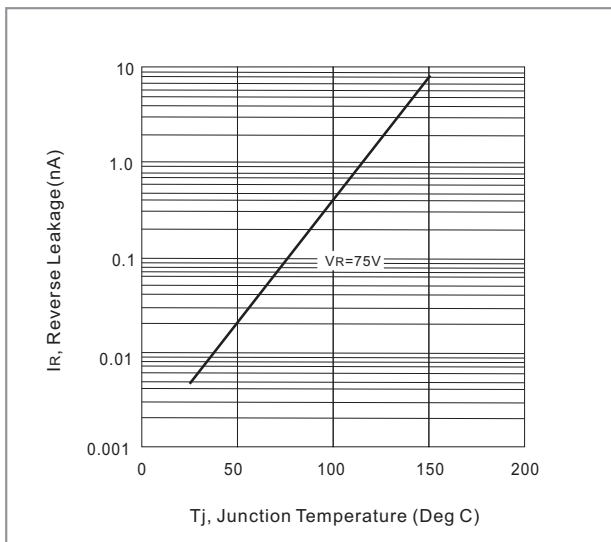


Fig. 1-Reverse Leakage vs. Junction Temperature

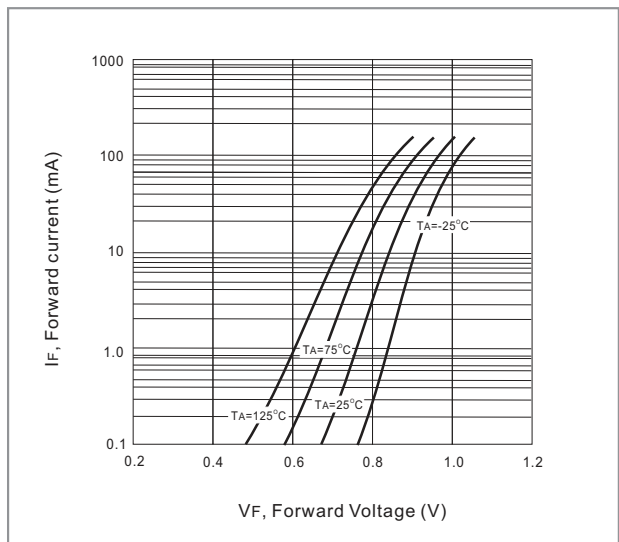


Fig. 2-Forward Current vs. Forward Voltage

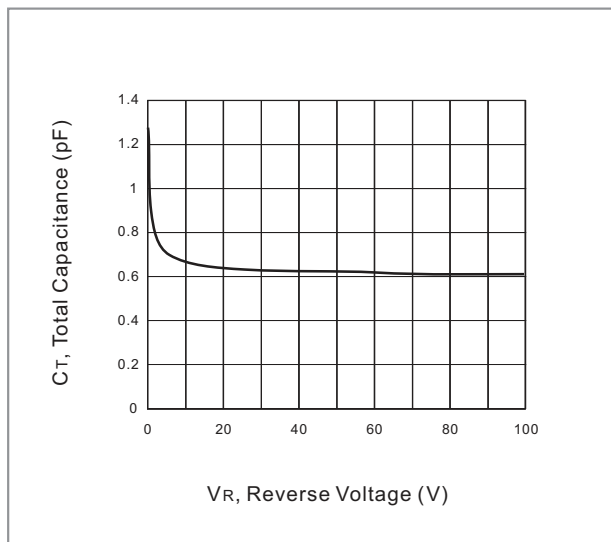
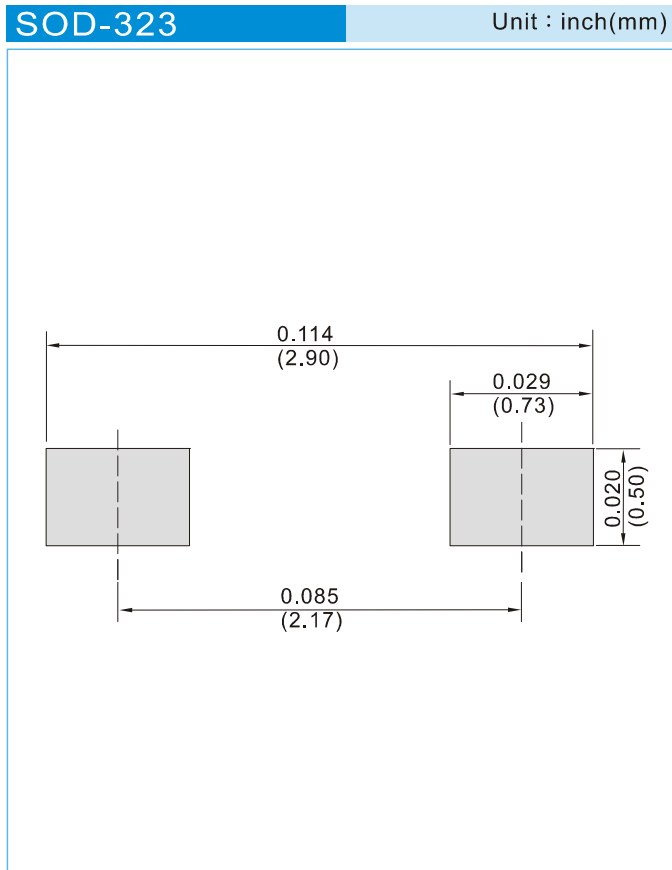


Fig. 3- Total capacitance vs. Reverse Voltage



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 12K per 13" plastic Reel  
T/R - 5K per 7" plastic Reel



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## Part No\_packing code\_Version

BAS116WS\_R1\_00001

BAS116WS\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> 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			



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