

## BAS116WS

### SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODE

**VOLTAGE**

**100 Volt**

**POWER**

**200mWatt**

**SOD-323**

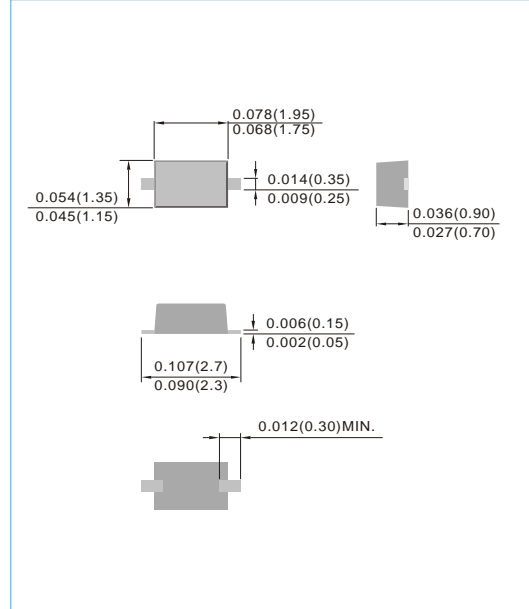
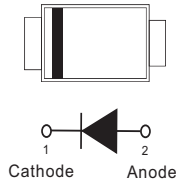
Unit : inch(mm)

#### 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	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Continuous Forward Current	$I_F$	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1\mu s$	$I_{FSM}$	4	A

#### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	$P_{TOT}$	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	$T_J$	-55 to 150	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to 150	$^{\circ}C$

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)

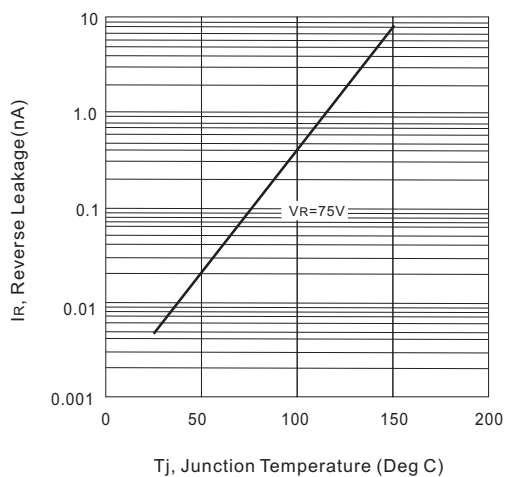


Fig. 1-Reverse Leakage vs. Junction Temperature

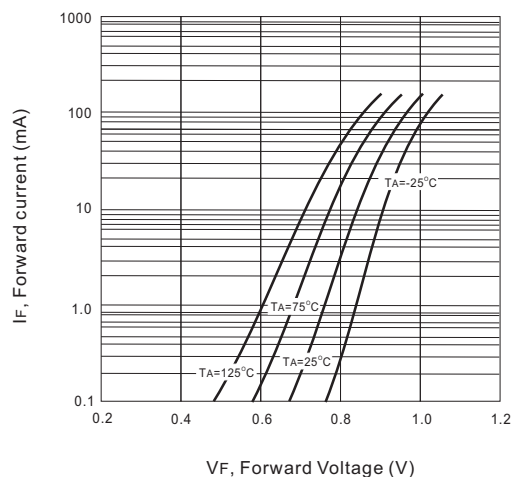


Fig. 2-Forward Current vs. Forward Voltage

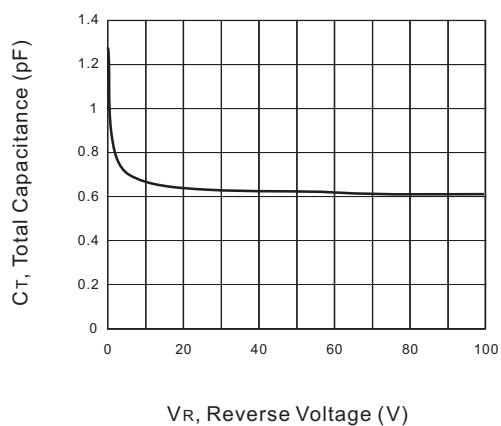


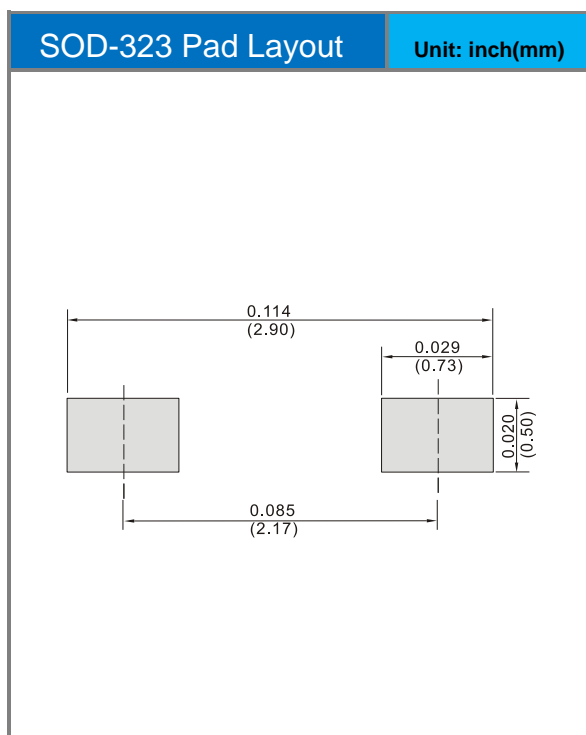
Fig. 3- Total capacitance vs. Reverse Voltage

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### Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAS116WS	SOD-323	5K pcs / 7" reel	PA
BAS116WS	SOD-323	12K pcs / 13" reel	PA

### Mounting Pad Layout



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