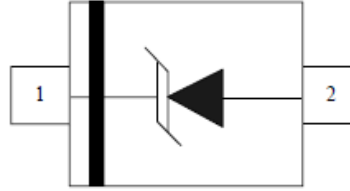




SOD-323



PRIMARY CHARACTERISTICS		
$I_F$	200	mA
$V_{RRM}$	40	V
$I_{FSM}$	600	mA
$V_F @ I_F=10mA$	500	V
$T_J \text{ max}$	150	°C

### Features

- Fast Switching
- Low Turn-on Voltage
- Designed For Surface Mount Application
- PN Junction Guard For Transient And ESD Protection
- Moisture Sensitivity Level 1

### Mechanical Data

- Case : Molded plastic, SOD-323
- Polarity : Shown above
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

### Ordering Information

Part No.	Remark	Package	Packing
BAS40WS	General	SOD-323	3000/ Tape & Reel
BAS40WS-H	Halogen Free		

### Maximum Ratings and Electrical Characteristics, Single Diode @TA=25°C

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	40	V
Forward Continuous Current	$I_F$	200	mA
Peak forward surge current @ <1.0s	$I_{FSM}$	600	mA
Power Dissipation	$P_d$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	K/W
Storage temperature	$T_{STG}$	-55 ~ 150	°C

#### NOTES:

- Work in normal at 0 to 25°C
- Work in decreasing the power at 25°C to 70°C
- Above 70 °C isn't the temperature scope for civil use.

### Electrical Ratings @TA=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	40			
Forward voltage $I_F=1mA$ $I_F=10mA$ $I_F=40mA$				0.38 0.5 1	V
Reverse current $V_R=30V$	$I_R$		20	200	nA
Capacitance between terminals $V_R=0V, f=1MHz$	$C_T$		4	5	pF
Reverse Recovery Time $I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100$	$T_{rr}$	5		5	ns
MARKING CODE		43			



**Typical Characteristics**

FIG. 1-Typical Forward Characteristics

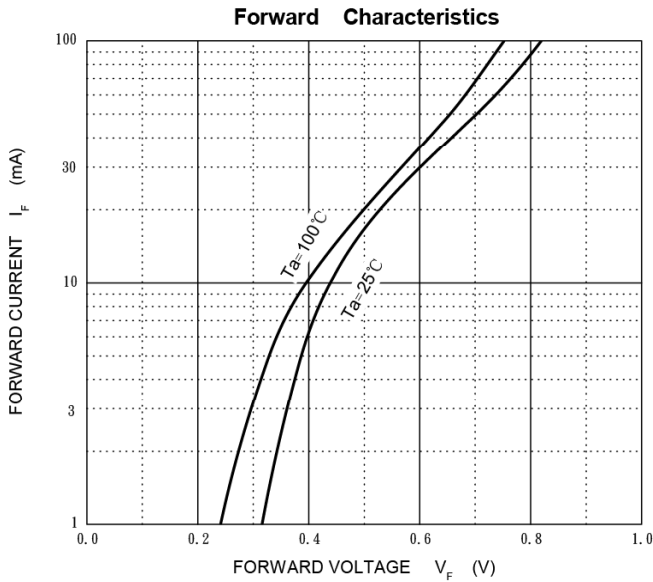


FIG. 2-Typical Reverse Characteristics

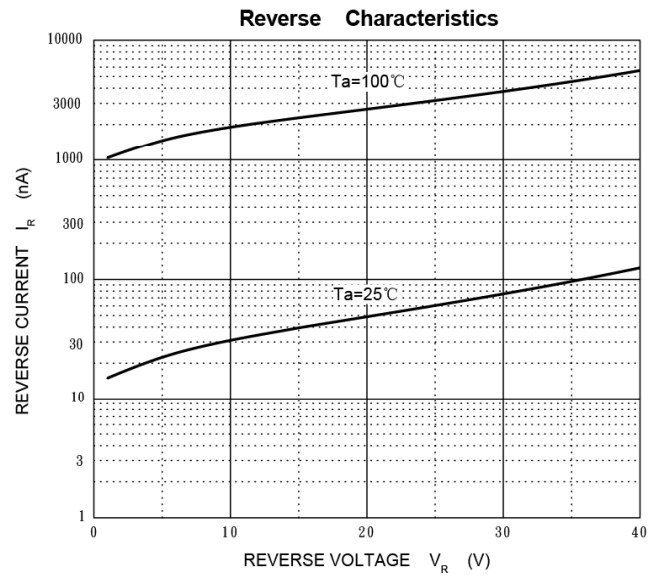
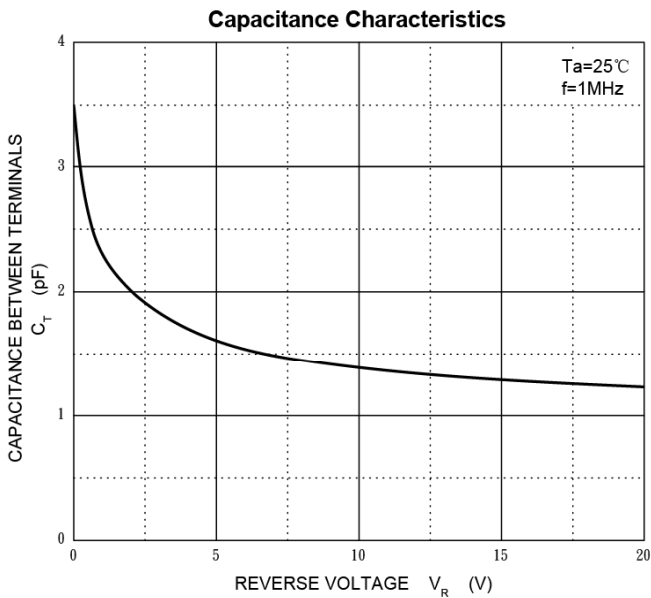
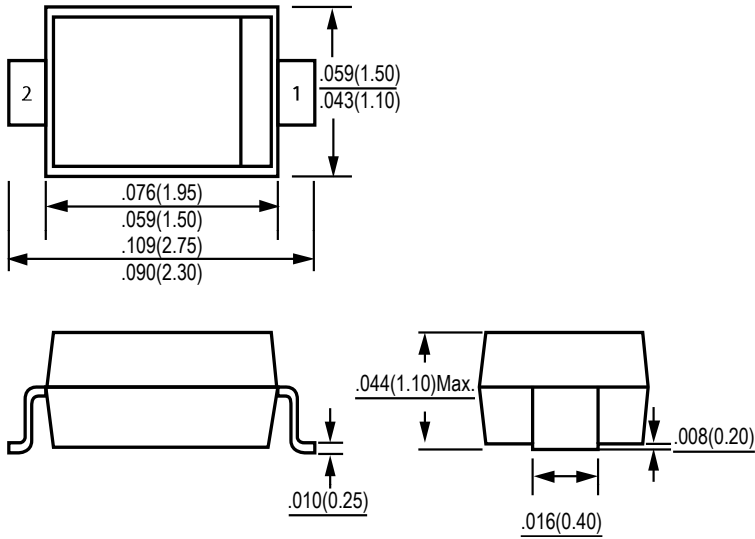


FIG.3-Typical Junction Capacitance





**Package Outline Dimensions**

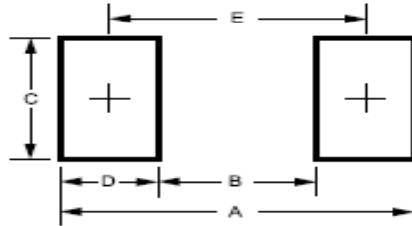


**SOD-323**

Dimensions in inches and (millimeters)

**Suggested Pad Layout**

Outline Symbol	SOD-323 millimeters
A	3.00
B	—
C	0.80
D	0.80
E	—



Item	Symbol	Dimension
		millimeters
Carrier width	A	1.48 ±0.10
Carrier length	B	3.30 ±0.10
Carrier depth	C	1.25 ±0.10
Sprocket hole	d	1.50 ±0.10
Reel outside diameter	D	178 ±2
Reel inner diameter	D1	54.4 ±1
Feed hole width	D2	13.0 ±1
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.10
Punch hole pitch	P	4.0 ±0.10
Sprocket hole pitch	P0	4.0 ±0.10
Embossment center	P1	2.0 ±0.10
Tape width	W	8.0 +0.3/-0.1
Reel width	W1	12.3 ±1

