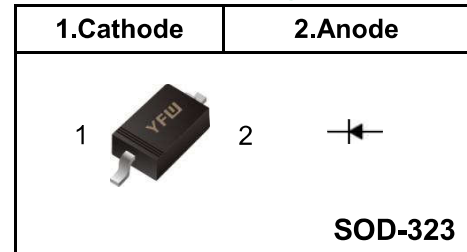


**Silicon Epitaxial Planar Switching Diode**

**FEATURES**

- ◆Fast switching speed
- ◆Ultra-small surface mount package
- ◆For general purpose switching applications

**Pinning**



**Marking Code**

<b>BAS416WS</b>	<b>D4</b>
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**Absolute Maximum Ratings (Ta = 25°C)**

Parameter	Symbol	Value	Unit
Repetitive Reverse Voltage	$V_{RRM}$	85	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current Pulse Width = 1 s Pulse Width = 1 us	$I_{FSM}$	0.5 4	A
Power Dissipation	$P_{tot}$	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

**Electrical Characteristics (Ta = 25°C)**

Parameter	Symbol	Min.	Max.	Unit
Breakdown Voltage at $I_R = 5 \mu A$ at $I_R = 100 \mu A$	$V_R$	75 100	- -	V V
Forward Voltage at $I_F = 1mA$ $I_F = 10 mA$ $I_F = 50 mA$ $I_F = 150 mA$	$V_F$	-	0.9 1 1.1 1.25	V
Reverse Current at $V_R = 20 V$ at $V_R = 75 V$	$I_R$	- -	25 1	nA $\mu A$
Diode Capacitance at $V_R = 0 V, f = 1 MHz$	$C_{tot}$	-	4	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R, I_F = I_R = 10 mA, R_L = 100 \Omega$	$t_{rr}$	-	3	ns

Typical Characteristics

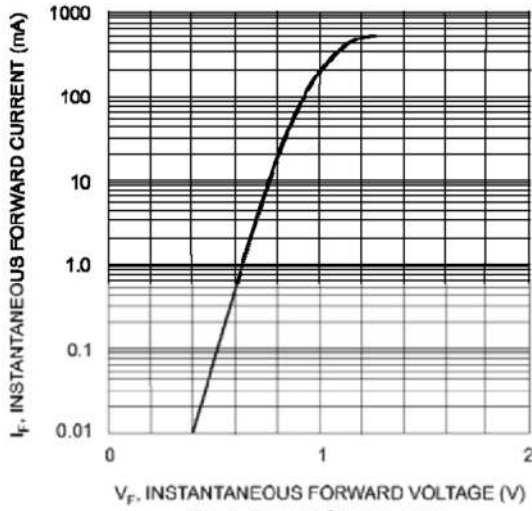


Fig. 1 Forward Characteristics

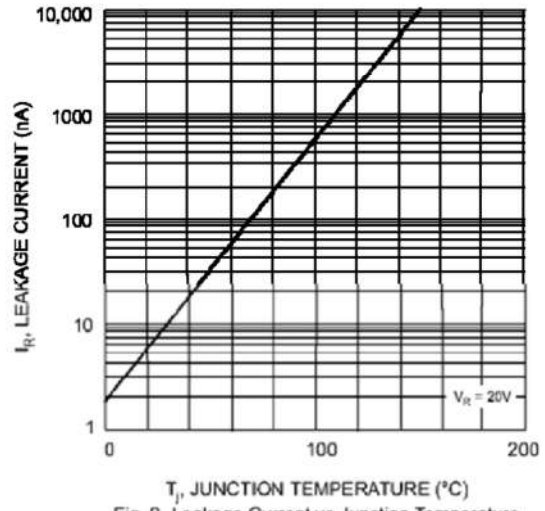


Fig. 2 Leakage Current vs Junction Temperature

**Ordering information**

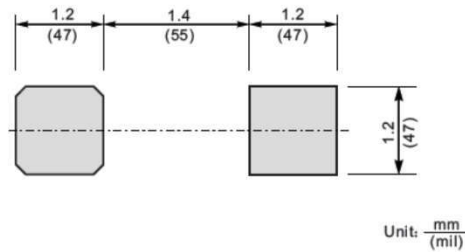
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SOD-323**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

**The recommended mounting pad size**



## Disclaimer

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