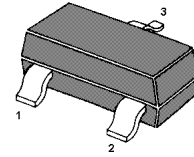
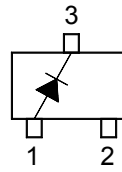


# BAS116

## LOW LEAKAGE SWITCHING DIODE

### Features

- Plastic SMD package
- Low leakage current
- High switching speed



Marking Code: **JV**  
SOT-23 Plastic Package

### Application

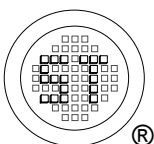
- Low leakage current applications in surface mounted circuits.

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Continuous Reverse Voltage	$V_R$	75	V
Continuous Forward Current	$I_F$	215	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	4	A
		$t = 1\ \mu\text{s}$	
		$t = 1\ \text{ms}$	
	$t = 1\ \text{s}$	0.5	
Power Dissipation	$P_{tot}$	250	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage	$V_F$	0.9	V
at $I_F = 1\ \text{mA}$			
at $I_F = 10\ \text{mA}$			
at $I_F = 50\ \text{mA}$			
at $I_F = 150\ \text{mA}$	$V_F$	1.25	V
Reverse Current	$I_R$	5	nA
at $V_R = 75\ \text{V}$		80	
Diode Capacitance	$C_d$	2	pF
at $f = 1\ \text{MHz}$			
Reverse Recovery Time	$t_{rr}$	3	$\mu\text{s}$
at $I_F = I_R = 10\ \text{mA}$ , $R_L = 100\ \Omega$ , $i_{rr} = 0.1\ I_R$			



**SEMTECH ELECTRONICS LTD.**

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ISO/TS 16949 : 2002  
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ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506088

# BAS116

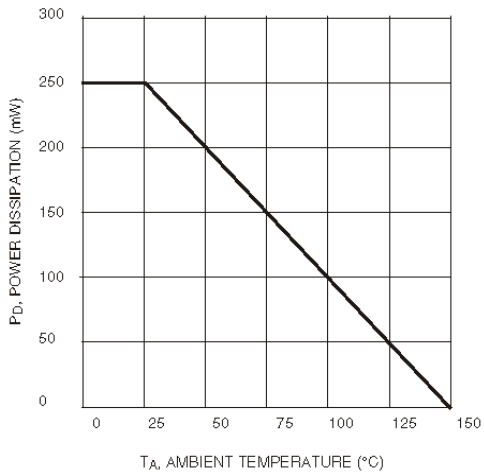


Fig. 1 Power Derating Curve

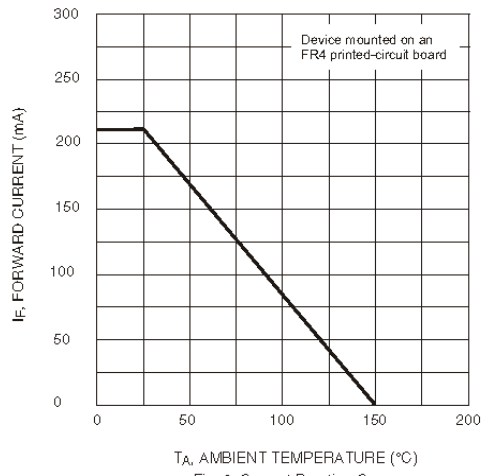


Fig. 2 Current Derating Curve

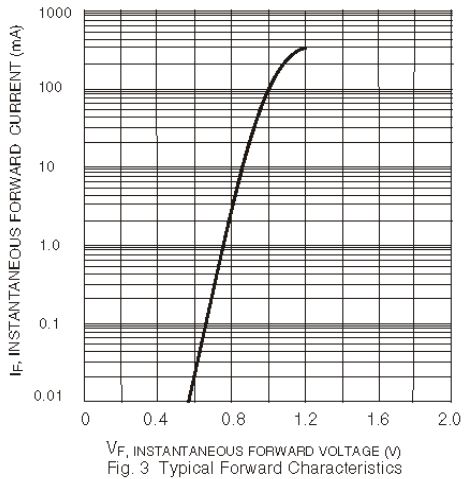


Fig. 3 Typical Forward Characteristics

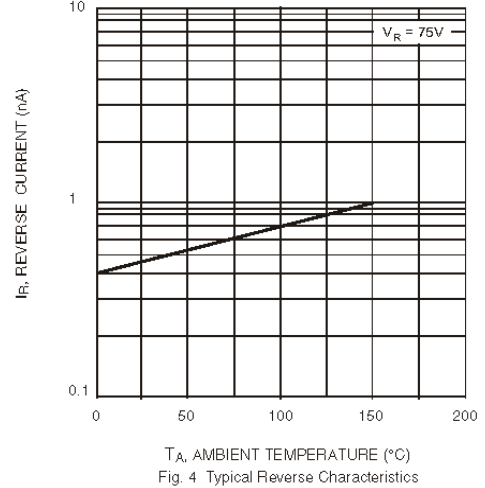
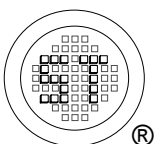


Fig. 4 Typical Reverse Characteristics



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