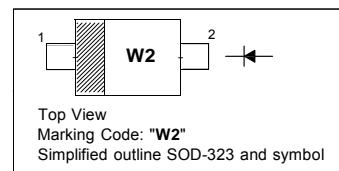


**BAV16WS Silicon Epitaxial Planar Switching Diode**
**Features**

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

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode


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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Forward Continuous Current	$I_{FM}$	300	mA
Non-Repetitive Peak Forward Current $t = 1 \mu\text{s}$ $t = 1 \text{ s}$	$I_{FSM}$	2 1	A
Power Dissipation	$P_{tot}$	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta,JA}$	625	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \mu\text{A}$	$V_{(BR)R}$	75	-	V
Peak Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 75 \text{ V}$ at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$	$I_R$	- - - -	25 1 30 50	nA $\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - -	0.715 0.855 1 1.25	V
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{RR} = 0.1 \times I_R, R_L = 100 \Omega$	$t_{rr}$	-	4	ns

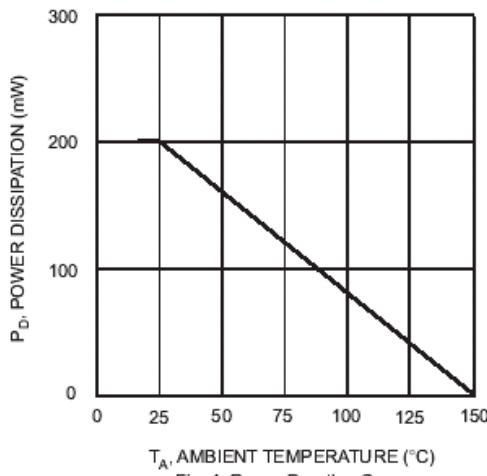


Fig. 1 Power Derating Curve

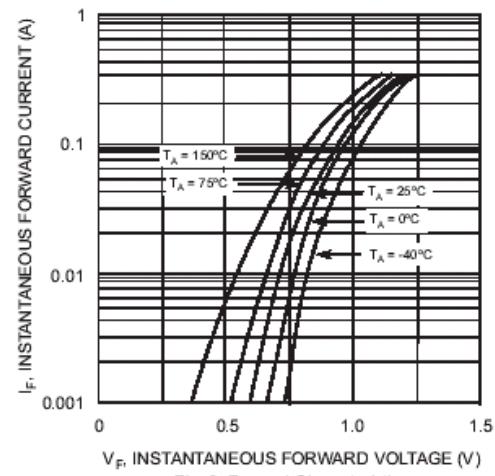


Fig. 2 Forward Characteristics

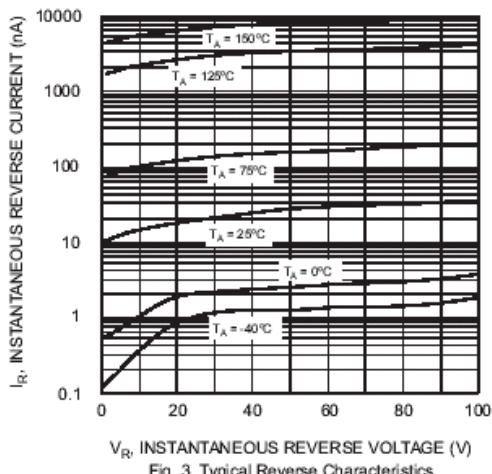


Fig. 3 Typical Reverse Characteristics

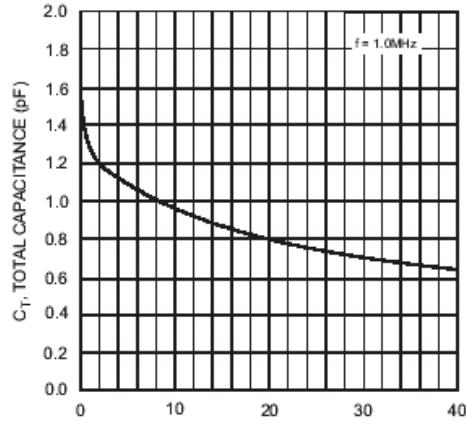


Fig. 4 Typical Capacitance vs. Reverse Voltage

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

**SOD-323**

