

## SOD-323 Plastic-Encapsulate Diodes

### BAV19WS/BAV20WS/BAV21WS FAST SWITCHING DIODE

#### FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications

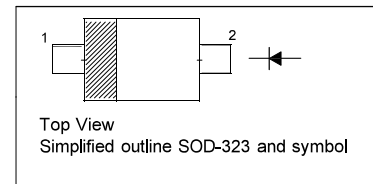
MARKING: BAV19WS: A8

BAV20WS: T2

BAV21WS: T3

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	BAV19WS	BAV20WS	BAV21WS	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	100	150	200	V
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Forward Continuous Current	$I_{FM}$	400			mA
Average Rectified Output Current	$I_O$	200			mA
Peak Forward Surge Current @t=1.0ms @ t=1.0s	$I_{FSM}$	2.5 0.5			A
Repetitive Peak Forward Current	$I_{FRM}$	625			mA
Power Dissipation	$P_d$	200			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625			°C/W
Storage Temperature	$T_{STG}$	-55~+150			°C

#### Electrical Ratings @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	$V_{F1}$			1.0	V	$I_F=0.1A$
	$V_{F2}$			1.25		$I_F=0.2A$
Reverse current	$I_R$			0.1	$\mu A$	$V_R=100V$
				0.1		$V_R=150V$
				0.1		$V_R=200V$
Capacitance between terminals	$C_T$			5	pF	$V_R=0V, f=1MHz$
Reverse recovery time	$t_{rr}$			50	ns	$I_F=I_R=30mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

## Typical Characteristics

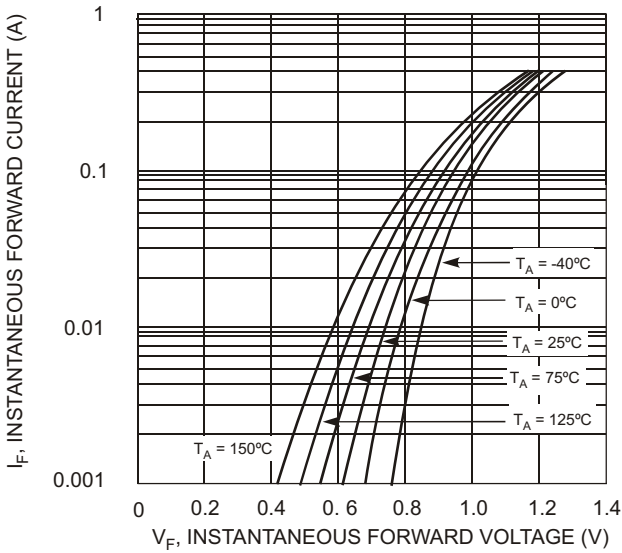


Fig. 1 Typical Forward Characteristics

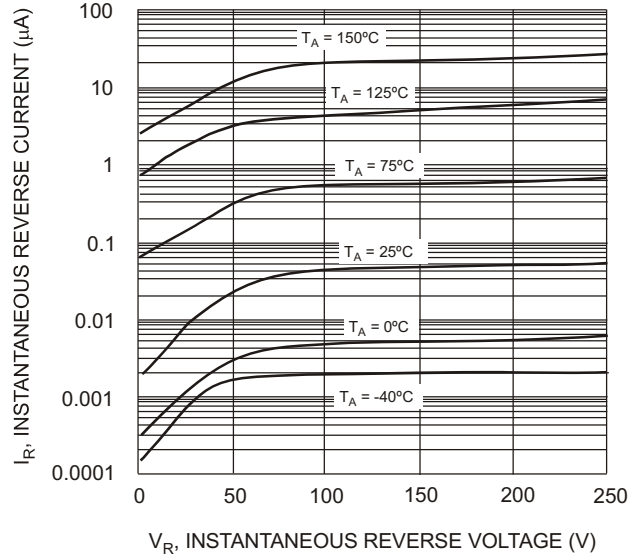


Fig. 2 Typical Reverse Characteristics

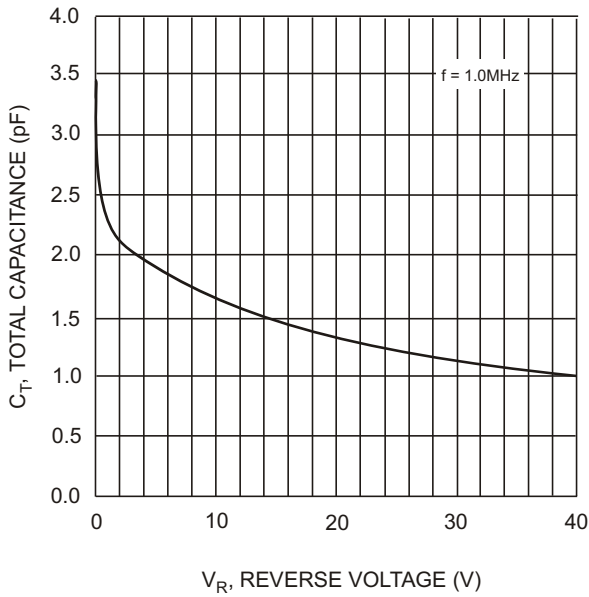


Fig. 3 Typical Capacitance vs. Reverse Voltage

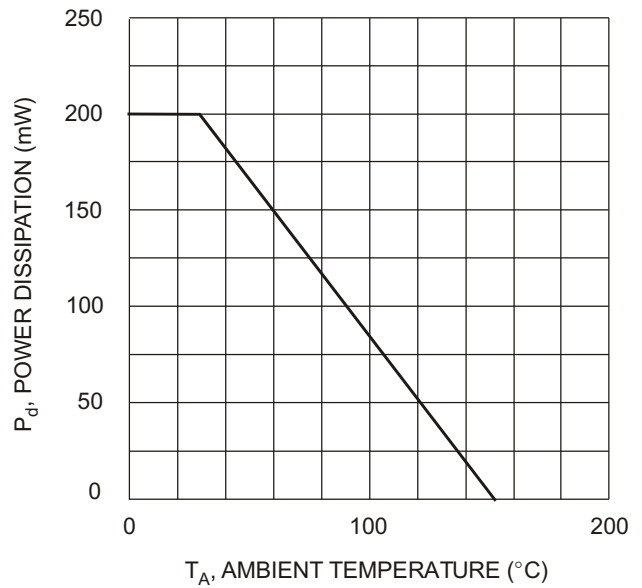


Fig. 4 Power Derating Curve, Total Package

### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323

