

**SOD-323 Fast Switching Diode**

**Features**

- 4.0nS; Fast Switching Device (TRR <4.0 nS)
- High Stability and High Reliability
- Low reverse leakage
- P/N suffix V means AEC-Q101 qualified, eg: BAS316WSV
- P/N suffix V means Halogen-free

**SOD-323**



**Mechanical Data**

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

MARKING: A6

**Absolute Maximum Ratings (Ta = 25 °C)**

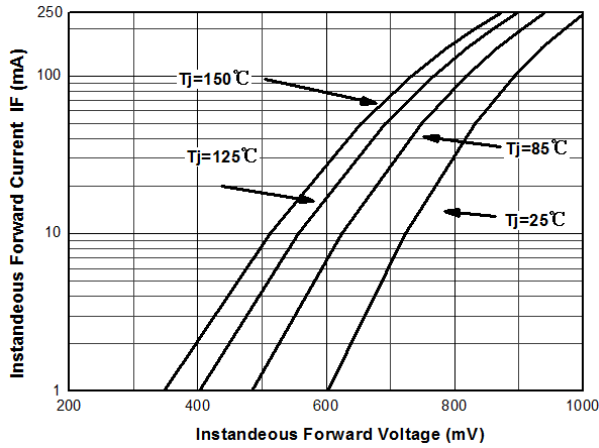
Symbol	Parameter	Value	Units
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	100	V
$V_{RRM}$	Repetitive Peak Reverse Voltage	100	V
$I_{FRM}$	Repetitive Peak Forward Current	300	mA
$I_{FSM}$	Non-Repetitive Peak Forward Current $t=1\mu s$	4	A
	$t=1ms$	1	
	$t=1s$	0.5	
$I_F$	Continuous Forward Current	250	mA
$P_D$	Power Dissipation	200	mW
$T_J$	Junction Temperature	150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C

\*1 Pulse width = 1  $\mu s$

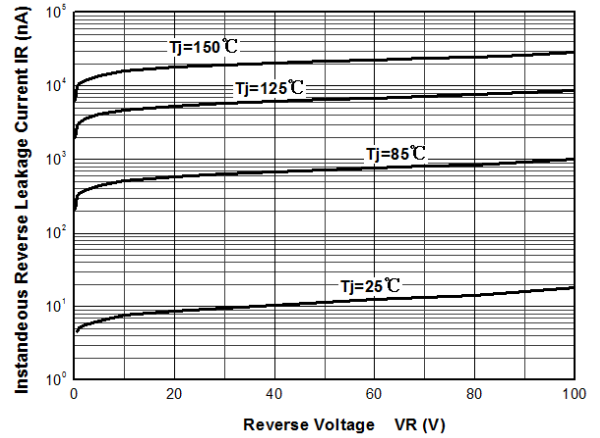
**Electrical Characteristics (Ta = 25 °C)**

Symbol	Parameter	Conditions	Min	Max	Units
$BV_R$	Breakdown Voltage	$I_R = 100\mu A$	100		V
		$I_R = 5\mu A$	75		V
$I_R$	Reverse Current	$V_R = 20V$		30	nA
		$V_R = 75V$		1	uA
		$V_R=100V$		5	uA
$V_F$	Forward Voltage	$I_F = 1mA$		0.715	V
		$I_F = 10mA$		0.855	V
		$I_F = 50mA$		1.0	V
		$I_F = 150mA$		1.25	V
C	Capacitance	$V_R = 0V, f = 1MHz$		2	pF
$t_{rr}$	Reverse recovery time	$I_F= I_R=10mA, I_{rr}=0.1 \times I_R$		4	nS

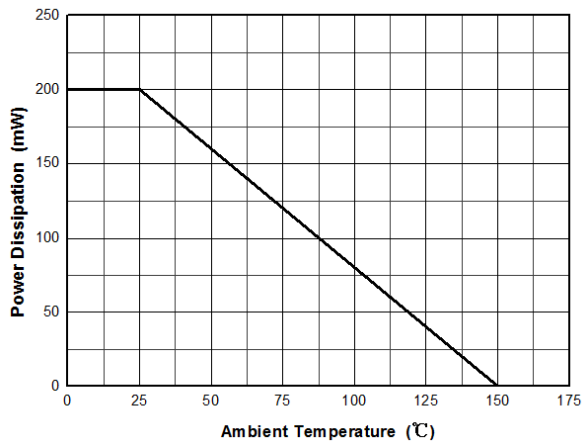
# RATING AND CHARACTERISTICS CURVES (BAS316WSV )



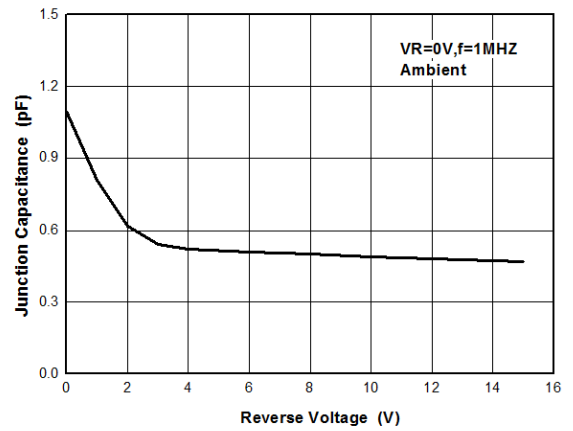
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics

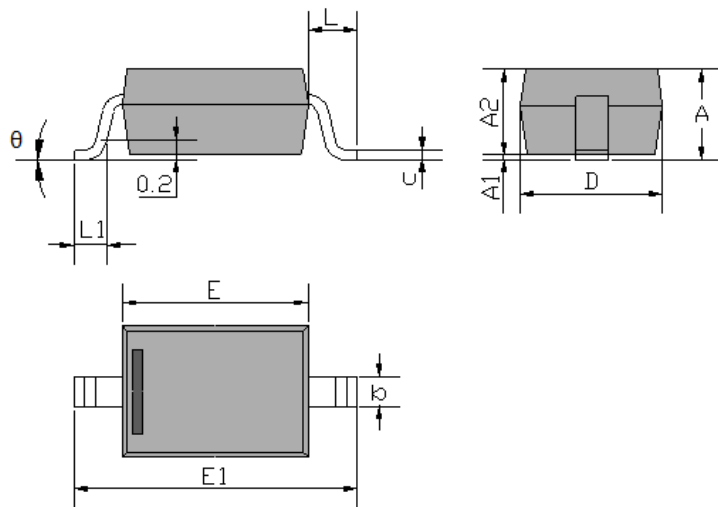


Power Derating Curve



Capacitance vs Reverse voltage( $V_R$ )

Package outline : SOD323-GW



SOD323 Package Outline

Symbol	Dimensions in mm	
	Min.	Max.
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475 REF.	
L1	0.250	0.400
$\theta$	0°	8°

- Note:
1. Halogen free, EMC
  2. Pb free solder
  3. Lead thickness includes solder plating
  4. Lead frame: A42
  5. Other Tolerance:  $\pm 0.05$
  6. Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
  7. Unit: mm

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-323	-T	3,000	15,000	---	---	178	390*205*310	120,000	5.17

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