

SOD-323 Plastic-Encapsulate Diodes

BAS19WS/BAS20WS/BAS21WS FAST SWITCHING DIODE

FEATURES

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

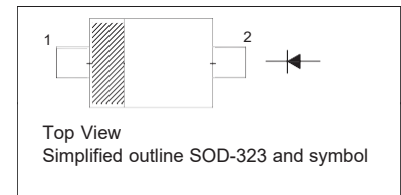
MARKING: BAS19WS: A8

BAS20WS: T2

BAS21WS: T3

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	BAS19WS	BAS20WS	BAS21WS	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	250	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		?/W
Storage Temperature	T_{STG}		-55~+150		?

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	μA	$V_R=100V$
				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

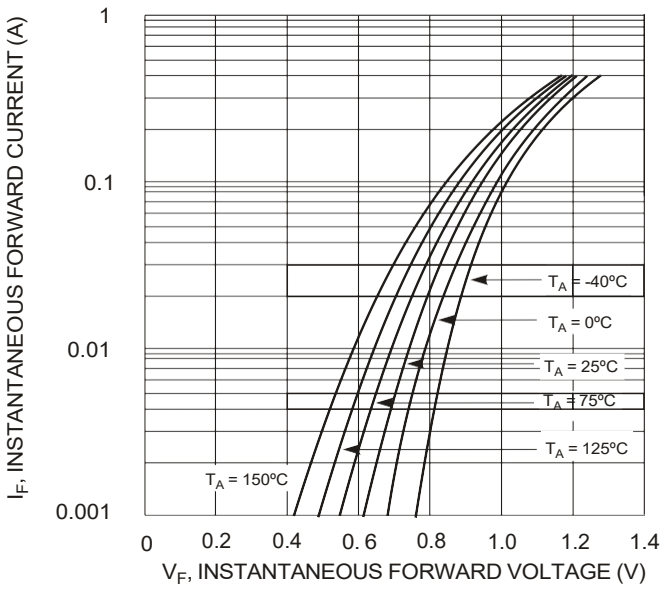


Fig. 1 Typical Forward Characteristics

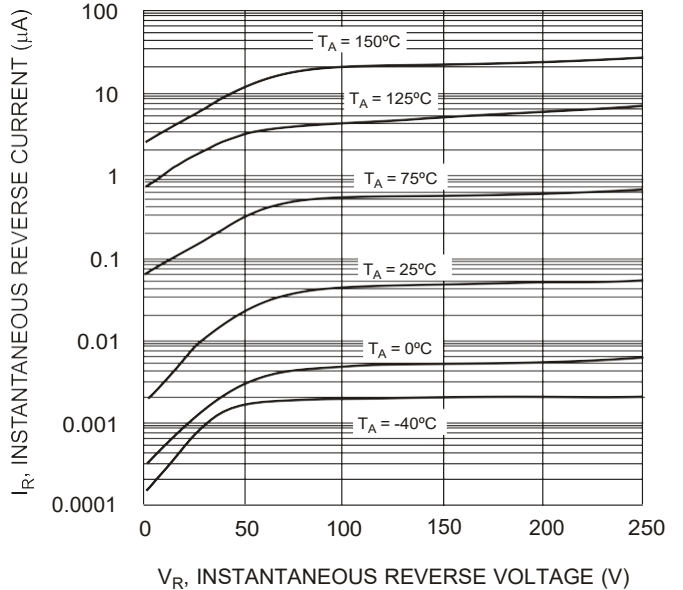


Fig. 2 Typical Reverse Characteristics

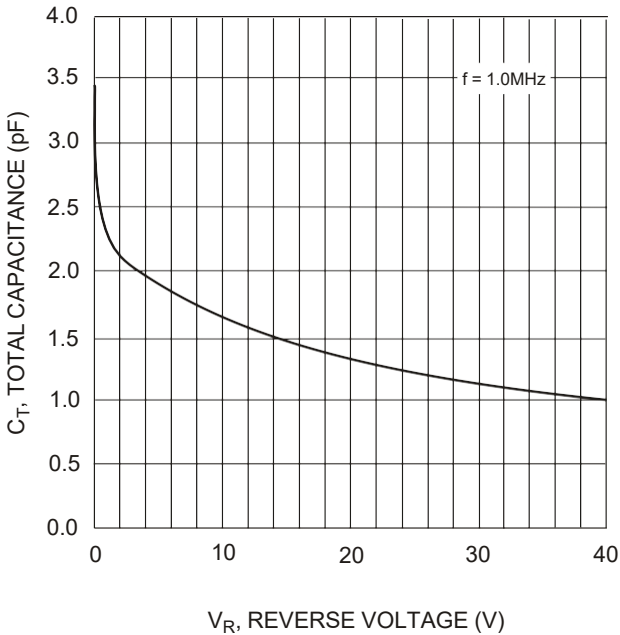


Fig. 3 Typical Capacitance vs. Reverse Voltage

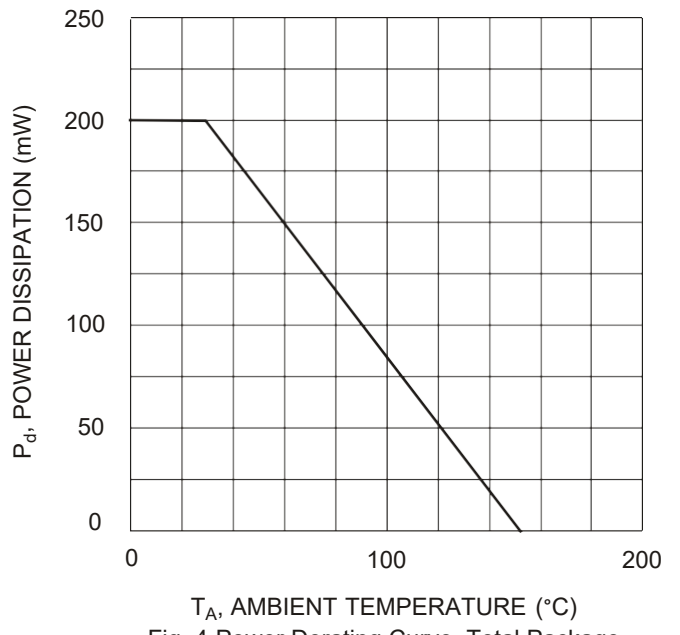
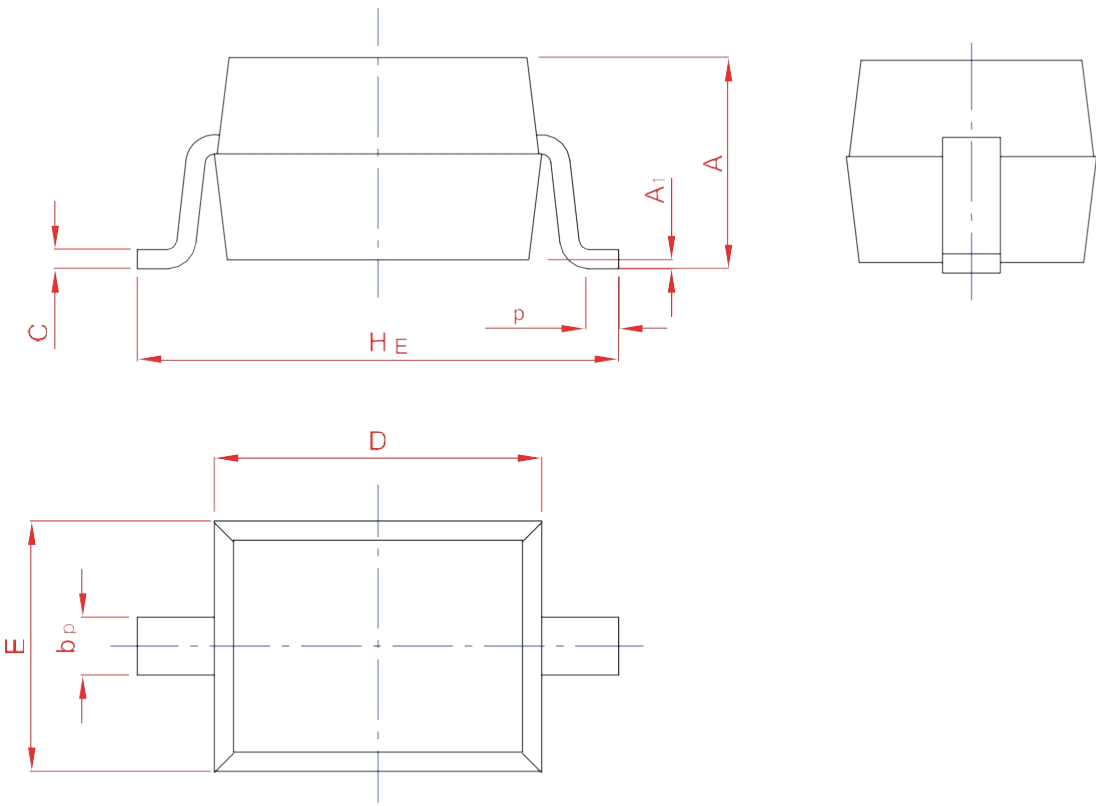
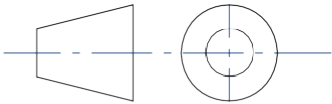


Fig. 4 Power Derating Curve, Total Package

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20