

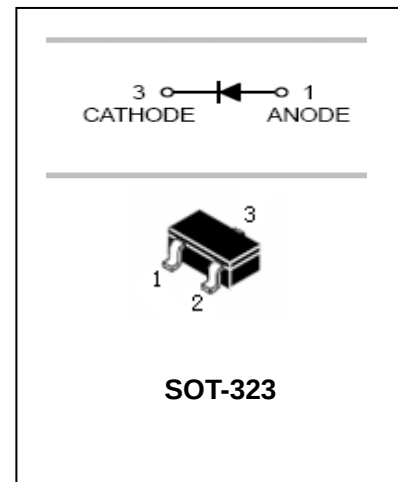
Surface Mount Switching Diode **BAS19W/BAS20W/BAS21W**

FEATURES

- Fast switching speed.
- High conductance.
- For general purpose switching applications.
- Surface mount package ideally suited for automatic insertion.



Lead-free



APPLICATIONS

- For general purpose switching applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS19W	KA8	SOT-323
BAS20W	KT2	SOT-323
BAS21W	KT3	SOT-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	BAS19W	BAS20W	BAS21W	Unit
Repetitive Peak reverse voltage	V _{RRM}	120	200	250	V
Diode reverse voltage	V _R	100	150	200	V
RMS Reverse Voltage	V _{R(RMS)}	71	106	141	V
Average rectified output current	I _O	200			mA
Forward Surge Current t=1.0μS t=1.0S	I _{FSM}	2.5 0.5			A
Power Dissipation	P _d	200			mW
Junction temperature	T _j	150			°C
Storage temperature range	T _{stg}	-65 to +150			°C

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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage BAS19W BAS20W BAS21W	$V_{(BR)R}$	$I_R=100\mu\text{A}$	120 200 250		V
Reverse voltage leakage current BAS19W BAS20W BAS21W	I_R	$V_R=100\text{V}$ $V_R=150\text{V}$ $V_R=200\text{V}$		100	nA
Forward voltage	V_F	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1.0 1.25	V
Diode capacitance	C_D	$V_R=0\text{V}$ $f=1\text{MHz}$		5	pF
Reverse recovery time	t_{rr}	$I_F=I_R=30\text{mA}$ $R_L=100\Omega$		50	ns

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

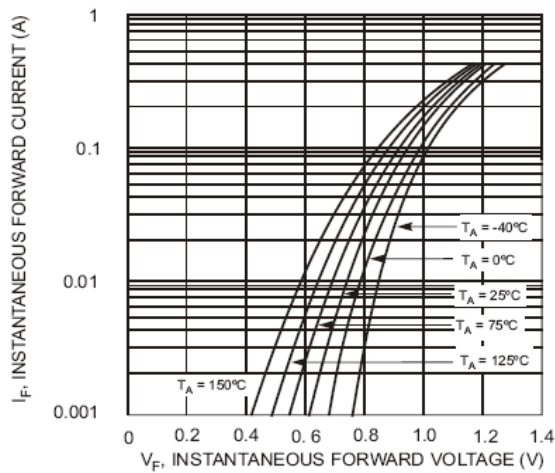


Fig. 1 Typical Forward Characteristics

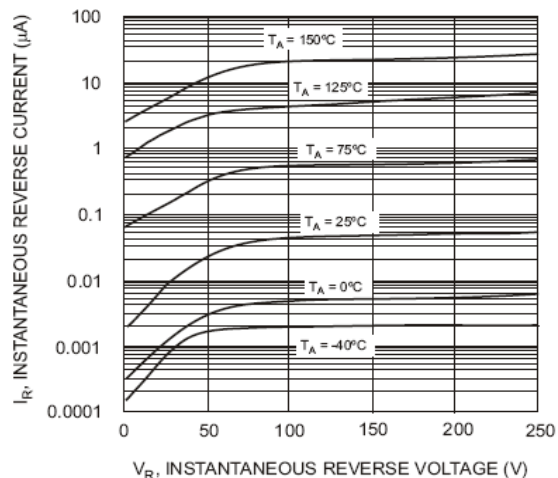


Fig. 2 Typical Reverse Characteristics

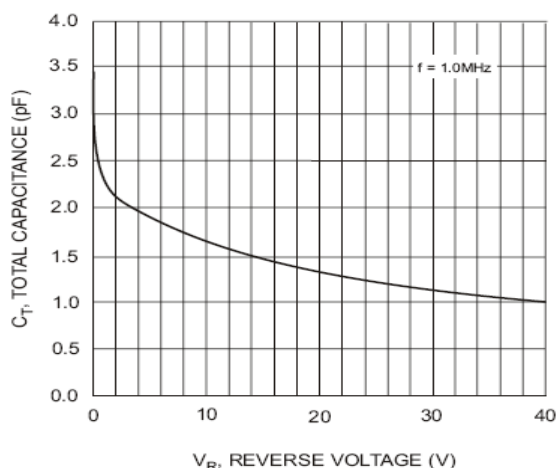


Fig. 3 Typical Capacitance vs. Reverse Voltage

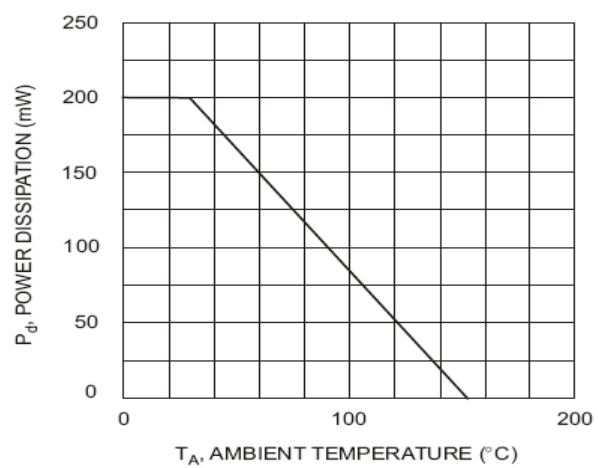


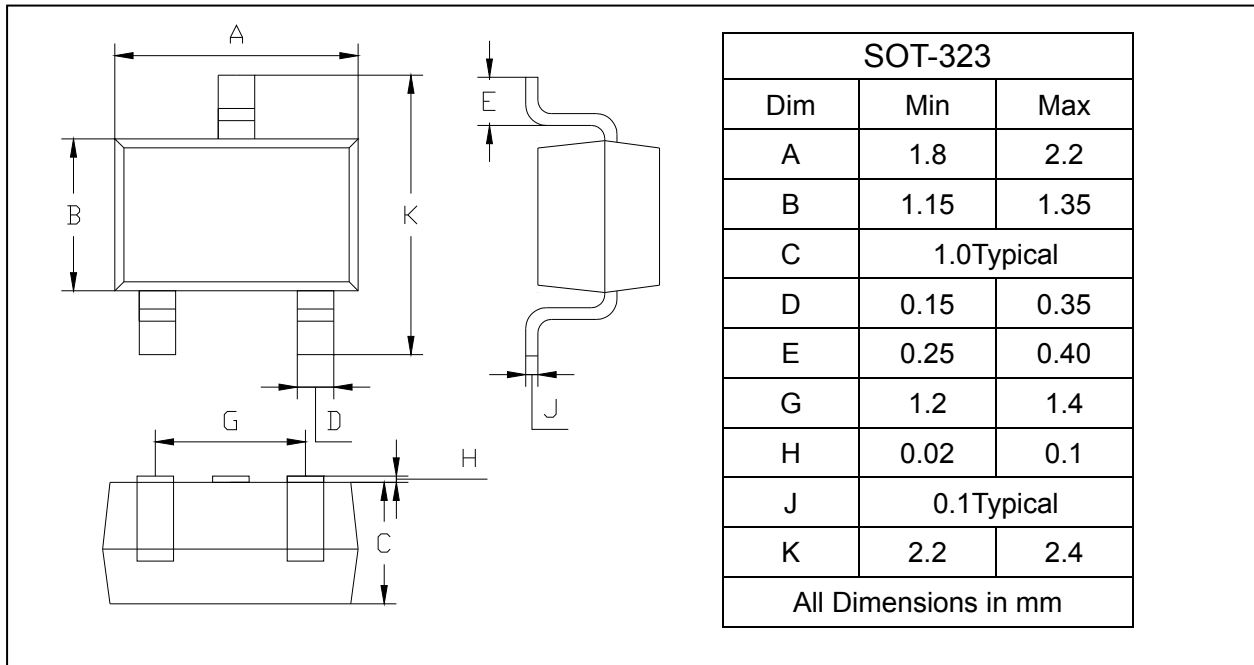
Fig. 4 Power Derating Curve, Total Package

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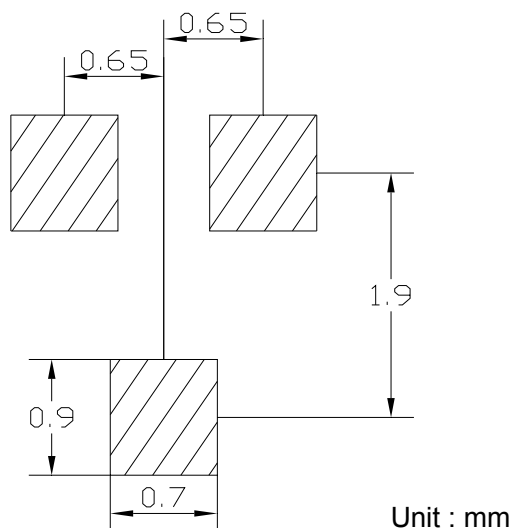
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAS19W/BAS20W/BAS21W	SOT-323	3000/Tape&Reel