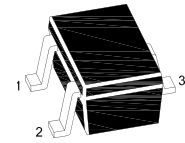
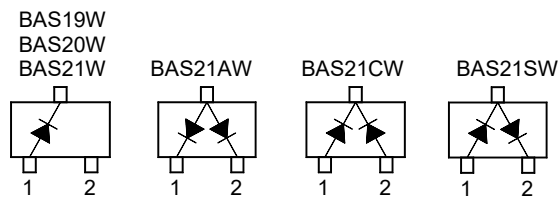


BAS19W, BAS20W, BAS21W/AW/CW/SW

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes



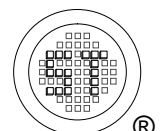
SOT-323 Plastic Package
 Marking Code:
 BAS19W~BAS21W: F5
 BAS21AW: F2
 BAS21CW: F3
 BAS21SW: F4

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

Parameter	Symbol	Value	Unit
Reverse Voltage BAS19W BAS20W BAS21W/AW/CW/SW	V_R	120 200 250	V
Continuous Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current at $t = 1$ s at $t = 1$ μs	I_{FSM}	0.5 2.5	A
Total Device Dissipation	P_{tot}	250	mW
Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100$ μA at $I_R = 100$ μA at $I_R = 100$ μA	$V_{(BR)R}$	120 200 250	- - -	V
Forward Voltage at $I_F = 100$ mA at $I_F = 200$ mA	V_F	- -	1 1.25	V
Reverse Current at $V_R = 100$ V at $V_R = 150$ V at $V_R = 200$ V at $V_R = 100$ V, $T_j = 150^\circ\text{C}$ at $V_R = 150$ V, $T_j = 150^\circ\text{C}$ at $V_R = 200$ V, $T_j = 150^\circ\text{C}$	I_R	- - - - - -	0.1 0.1 0.1 100 100 100	μA
Total Capacitance at $V_R = 0$, $f = 1$ MHz	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30$ mA, $R_L = 100$ Ω , $I_{rr} = 0.1 \times I_R$	t_{rr}	-	50	ns



BAS19W, BAS20W, BAS21W/AW/CW/SW

Electrical characteristic curves

Fig 1. Power Derating Curve

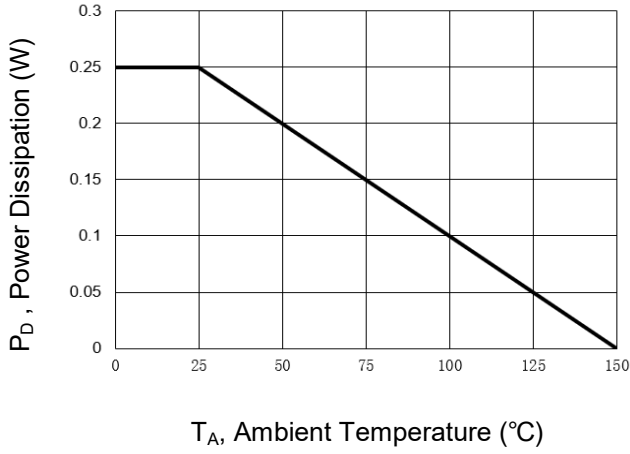


Fig 2. Forward Characteristic Curve

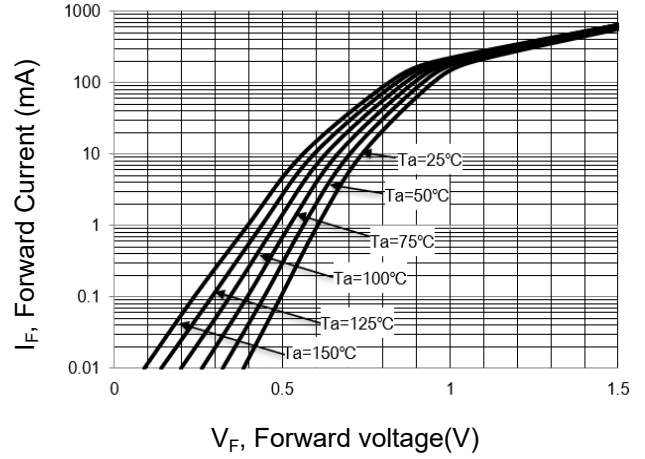


Fig 3. Reverse Characteristic Curve

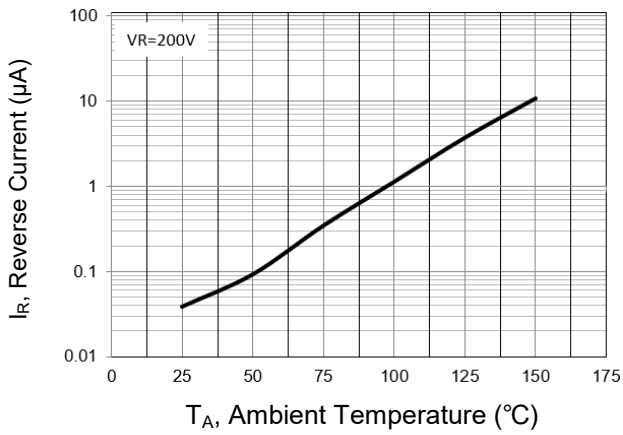
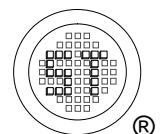
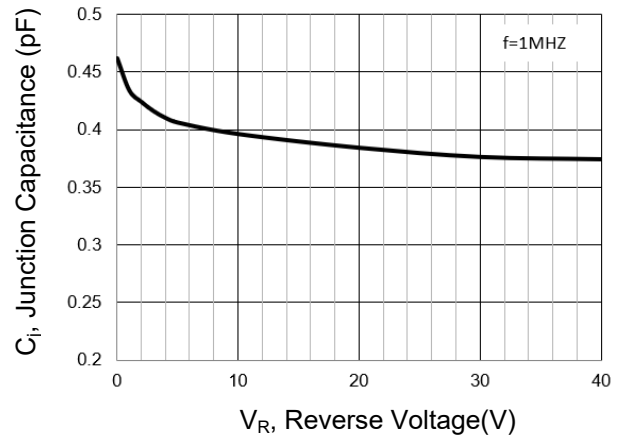


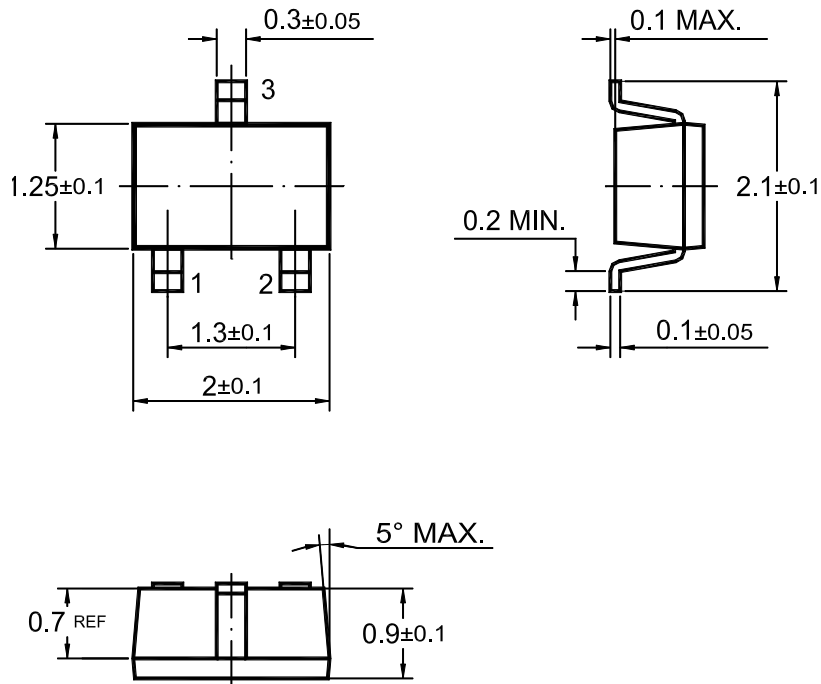
Fig 4. Junction Capacitance



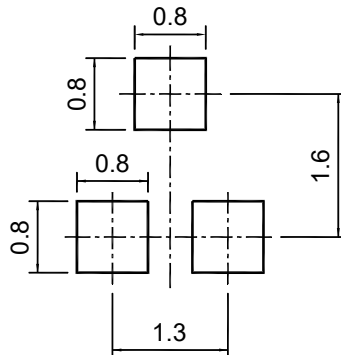
BAS19W, BAS20W, BAS21W/AW/CW/SW

PACKAGE OUTLINE(Dimensions in mm)

SOT-323



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

- "**" = Part No.
 - "YM" = Date Code Marking
 - "Y" = Year
 - "M" = Month
- Font type: Arial

