

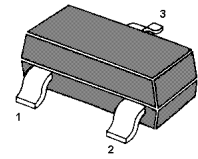
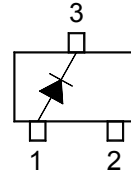
BAS19, BAS20, BAS21-AH

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

Features

- AEC-Q101 Qualified and PPAP Capable
- Halogen and Antimony Free(HAF), RoHS compliant



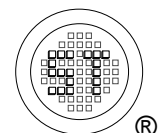
Marking Code: **HC**
TO-236 Plastic Package

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

Parameter		Symbol	Value	Unit
Reverse Voltage	BAS19 BAS20 BAS21	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 $t = 1\text{ s}$ at $t = 1\text{ }\mu\text{s}$	I_{FSM}	0.5 2.5	A
Total Device Dissipation		P_{tot}	350	mW
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction and Storage Temperature Range		T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

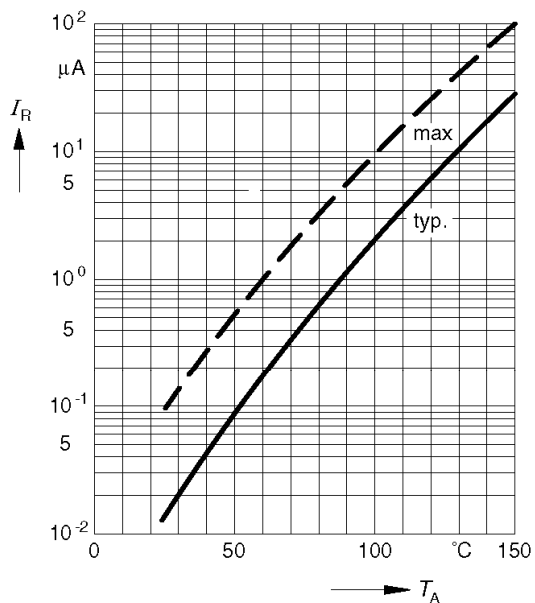
Characteristics at $T_a = 25^\circ\text{C}$

Parameter		Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$		V_F	- -	1 1.25	V V
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 100\text{ }\mu\text{A}$	BAS19 BAS20 BAS21	$V_{(BR)}$	120 200 250	- - -	V V V
Reverse Current at $V_R = 100\text{ V}$ at $V_R = 150\text{ V}$ at $V_R = 200\text{ V}$ at $V_R = 100\text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 150\text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 200\text{ V}, T_j = 150^\circ\text{C}$	BAS19 BAS20 BAS21 BAS19 BAS20 BAS21	I_R	- - - - - -	0.1 0.1 0.1 100 100 100	μA μA μA μA μA μA
Total Capacitance at $V_R = 0, f = 1\text{ MHz}$		C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = 10\text{ mA}, V_R = 6\text{ V}, R_L = 100\text{ }\Omega, I_{rr} = 0.1 \times I_R$		t_{rr}	-	50	ns



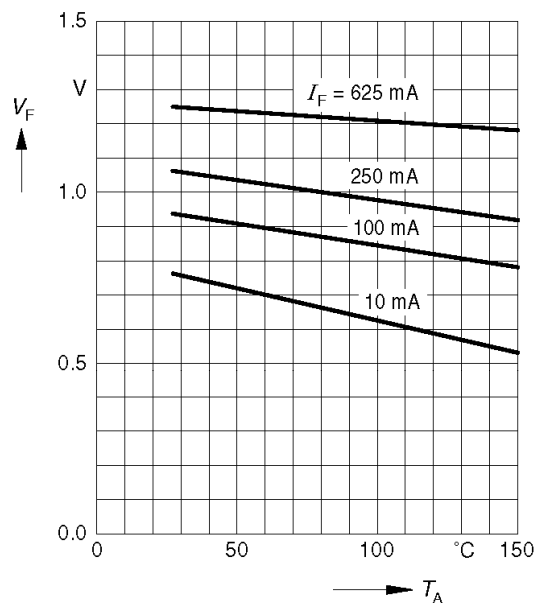
Reverse current $I_R = f(T_A)$

$V_R = 200V$

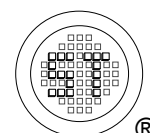
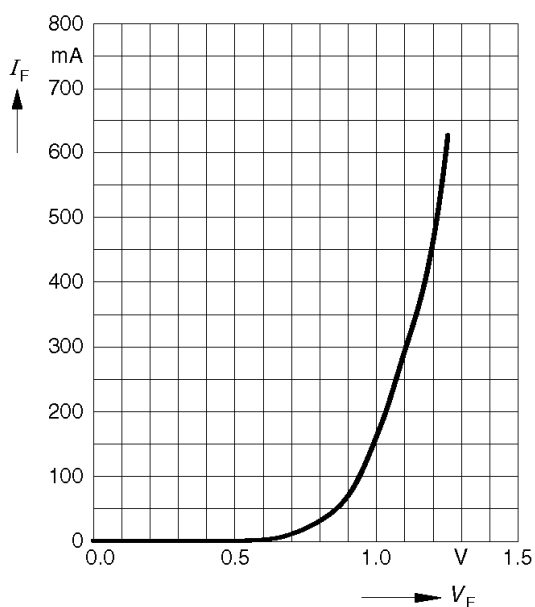


Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



Forward current $I_F = f(V_F)$

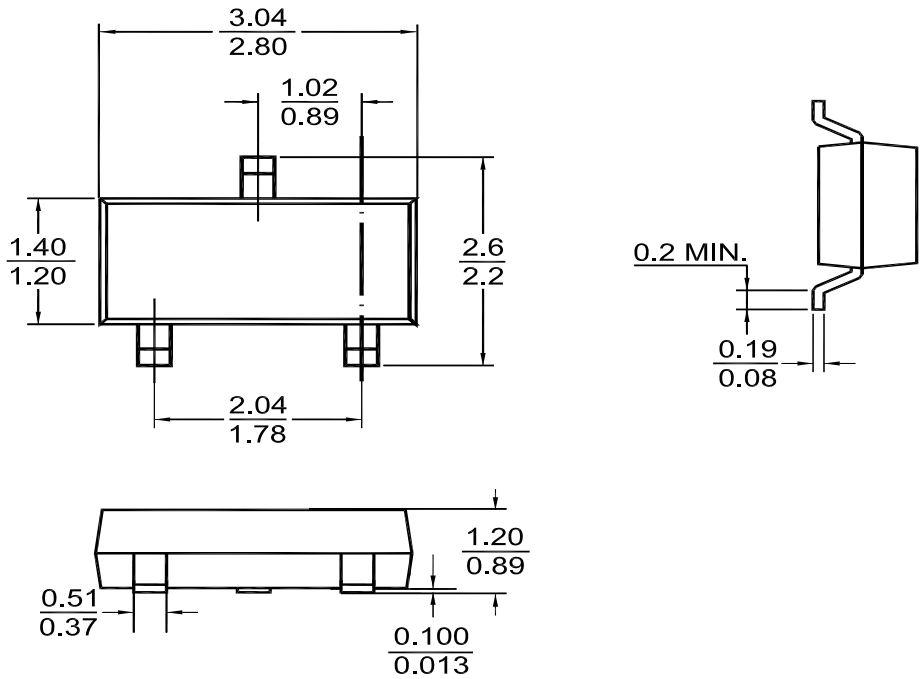


BAS19, BAS20, BAS21-AH

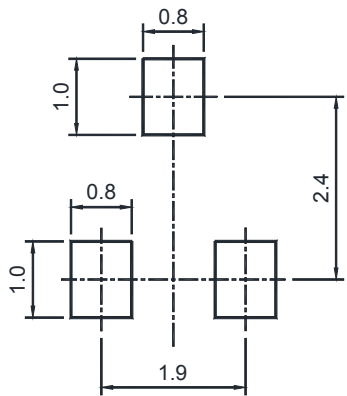
PACKAGE OUTLINE

Plastic surface mounted package (Dimensions in mm)

TO-236



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
TO-236	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

