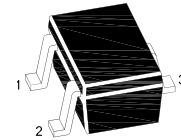
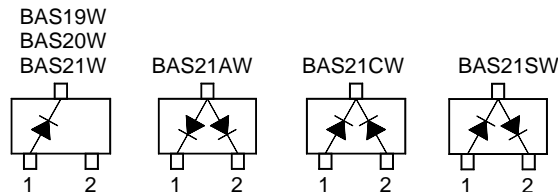


Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes



SOT-323 Plastic Package
Marking Code:
BAS19W~BAS21W: T3
BAS21AW: F2
BAS21CW: F3
BAS21SW: F4

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

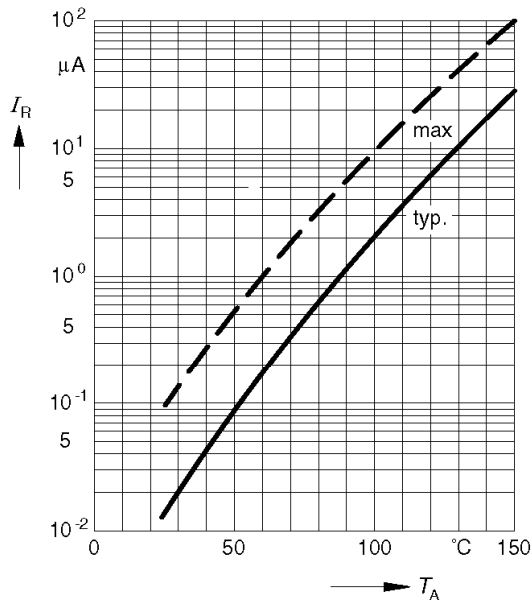
Parameter	Symbol	Value	Unit
Reverse Voltage	BAS19W BAS20W BAS21W	120 200 250	V
Continuous Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at $t = 1$ s at $t = 1$ μs	0.5 2.5	A
Total Device Dissipation	P_{tot}	250	mW
Thermal Resistance 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
Reverse Breakdown Voltage at $I_R = 100$ μA at $I_R = 100$ μA at $I_R = 100$ μA	BAS19W BAS20W BAS21W	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, $T_j = 150^\circ\text{C}$	BAS19W BAS20W BAS21W BAS19W BAS20W BAS21W	- - - - - -	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, $I_{R(REC)} = 3$ mA, $R_L = 100$ Ω	t_{rr}	-	50	ns

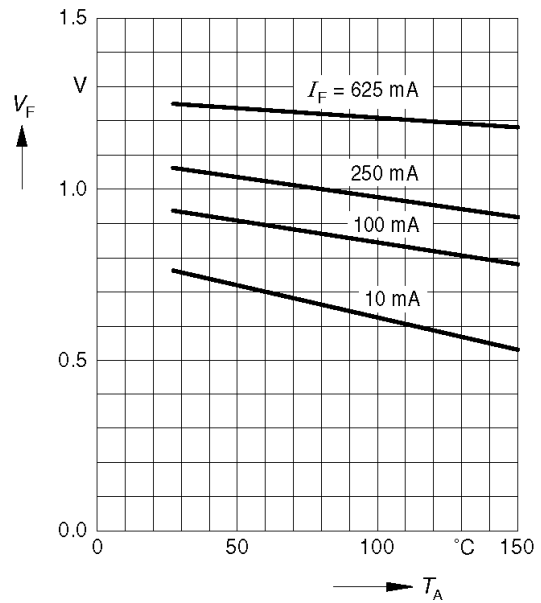
Reverse current $I_R = f(T_A)$

$V_R = 200V$

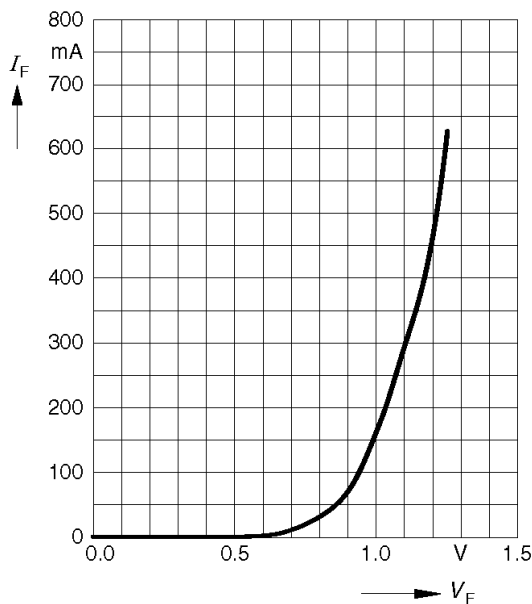


Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$

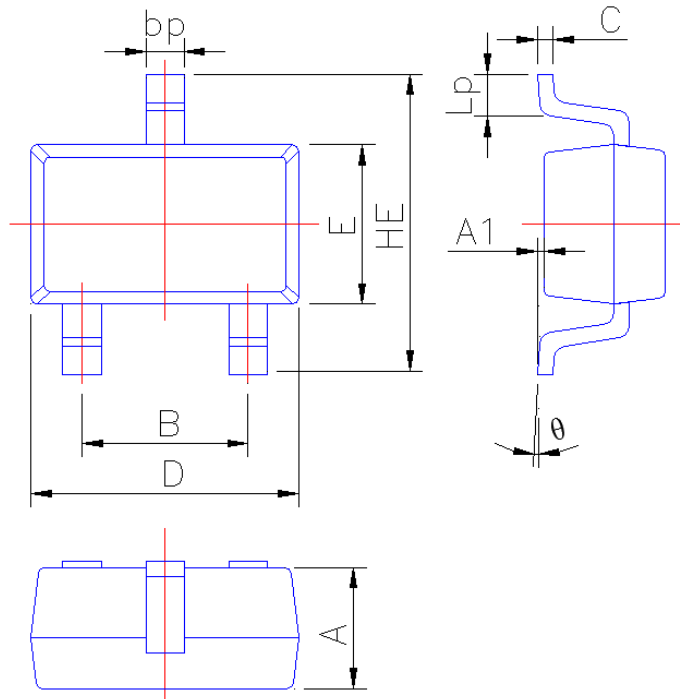


Forward current $I_F = f(V_F)$





SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°