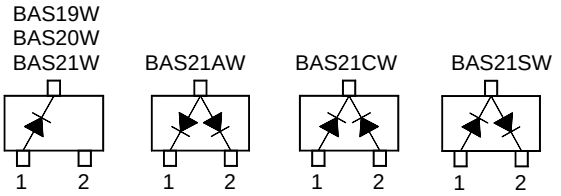
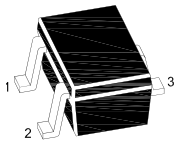
Silicon Epitaxial Planar Diodes

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℃)

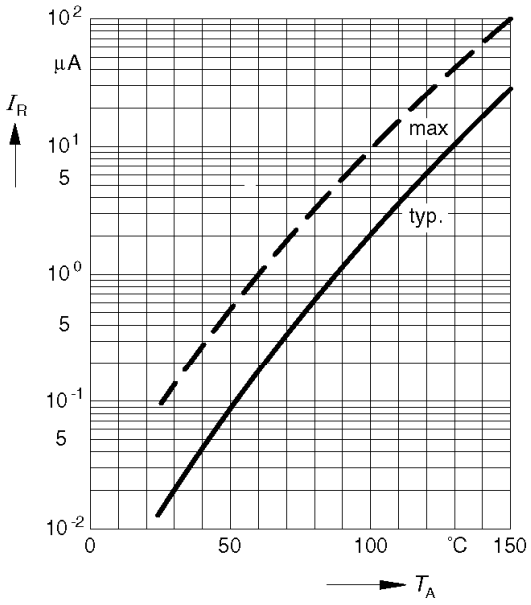
Parameter		Symbol	Value	Unit
Reverse Voltage	BAS19W BAS20W BAS21W	V_R	120 200 250	V
Continuous Forward Current		$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 μs	I_{FSM}	0.5 2.5	A
Total Device Dissipation		P_{tot}	250	mW
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	357	℃/W
Junction and Storage Temperature Range		T_j, T_{stg}	- 55 to + 150	℃

Characteristics at T_a = 25℃

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	$V_{(BR)R}$	 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℃ at V_R = 150 V, T_j = 150℃ at V_R = 200 V, T_j = 150℃	 BAS19W BAS20W BAS21W BAS19W BAS20W BAS21W	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, $I_{R(REC)}$ = 3 mA, R_L = 100 Ω		t_{rr}	-	50	ns

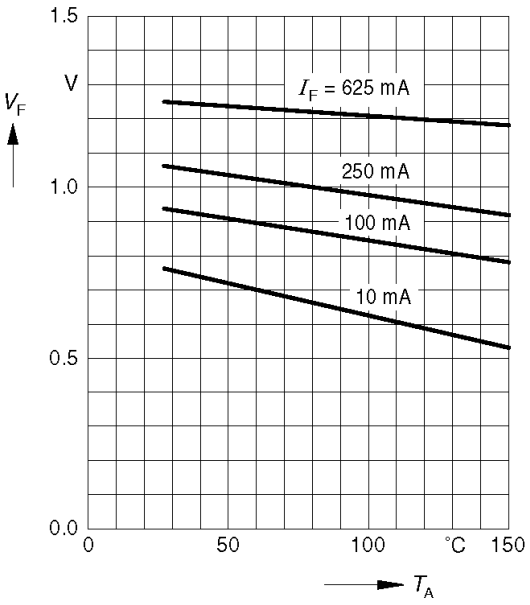
Reverse current $I_R = f(T_A)$

V_R = 200V

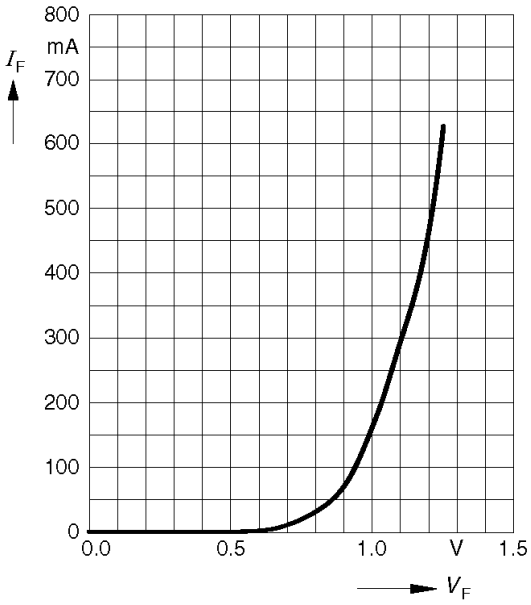


Forward Voltage $V_F = f(T_A)$

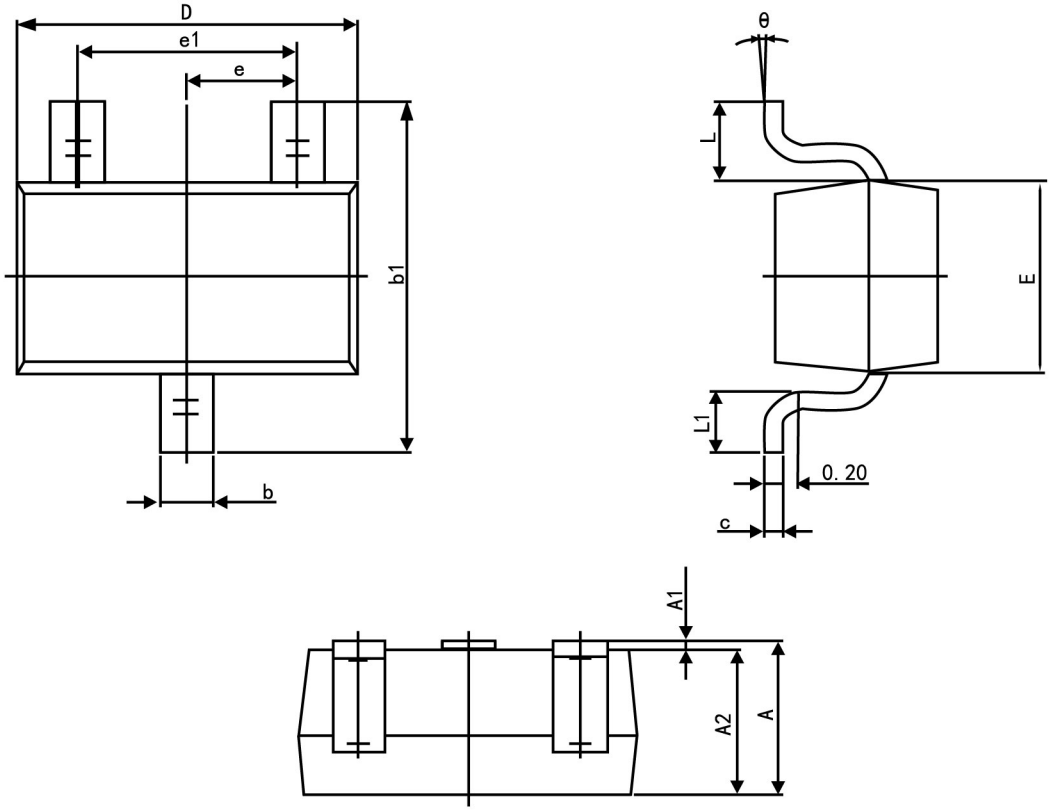
I_F = Parameter



Forward current $I_F = f(V_F)$



SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.200	0.400
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	**0°**	8°