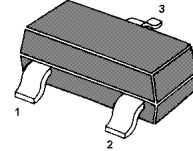
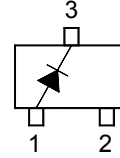


BAS19, BAS20, BAS21 Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes



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

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

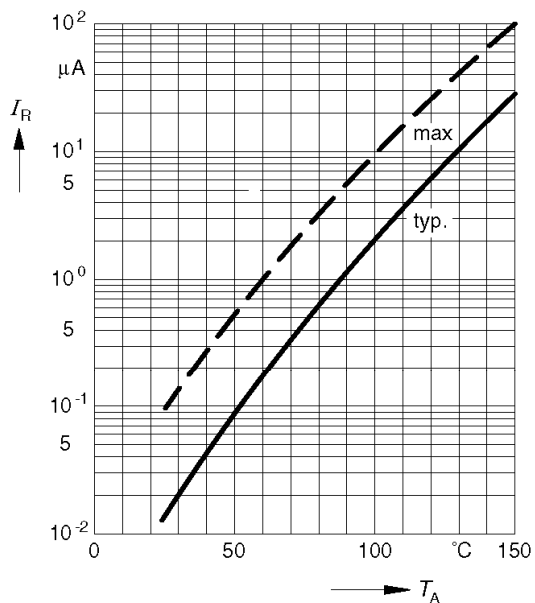
Parameter	Symbol	Value	Unit	
Reverse Voltage	BAS19 BAS20 BAS21	V_R	120 200 250	V
Continuous Forward Current	$I_{F(AV)}$	200	mA	
Repetitive Peak Forward Current	I_{FRM}	625	mA	
Non-repetitive Peak Forward Surge Current	at $t = 1\text{ s}$ at $t = 1\text{ }\mu\text{s}$	I_{FSM}	0.5 2.5	A
Total Device Dissipation	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 $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
Forward Voltage	V_F	-	1	V	
at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$		-	1.25	V	
Reverse Breakdown Voltage	$V_{(BR)}$	120	-	V	
at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 100\text{ }\mu\text{A}$		BAS19 BAS20	200	-	V
at $I_R = 100\text{ }\mu\text{A}$		BAS21	250	-	V
Reverse Current	I_R	-	0.1	μA	
at $V_R = 100\text{ V}$		BAS19	-	0.1	μA
at $V_R = 150\text{ V}$		BAS20	-	0.1	μA
at $V_R = 200\text{ V}$		BAS21	-	0.1	μA
at $V_R = 100\text{ V}, T_j = 150\text{ }^\circ\text{C}$		BAS19	-	100	μA
at $V_R = 150\text{ V}, T_j = 150\text{ }^\circ\text{C}$ at $V_R = 200\text{ V}, T_j = 150\text{ }^\circ\text{C}$		BAS20 BAS21	-	100	μA
Total Capacitance	C_{tot}	-	5	pF	
at $V_R = 0, f = 1\text{ MHz}$		-	5	pF	
Reverse Recovery Time	t_{rr}	-	50	ns	
at $I_F = I_R = 30\text{ mA}, I_{R(REC)} = 3\text{ mA}, R_L = 100\text{ }\Omega$		-	50	ns	

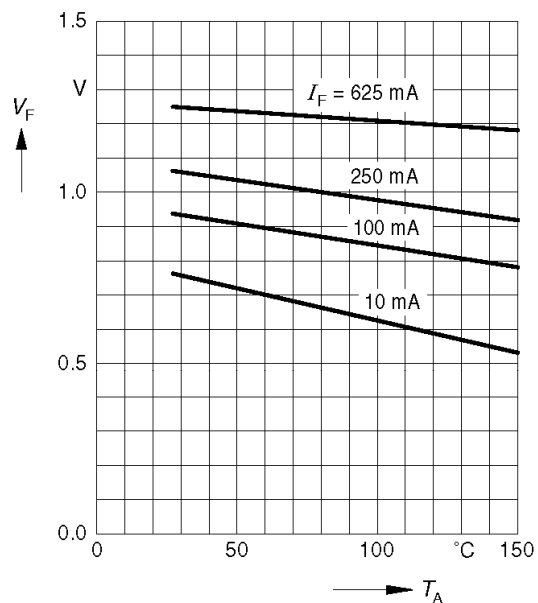
Reverse current $I_R = f(T_A)$

$V_R = 200V$



Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



Forward current $I_F = f(V_F)$

