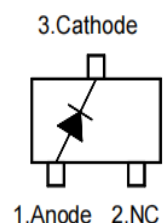


Silicon Epitaxial Planar Switching Diode

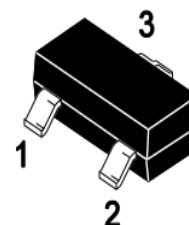
Features

- High voltage
- Small package
- Small capacitance

Equivalent Circuit



SOT-23



1.Anode 2.NC 3.Cathode

Marking Code :

BAS19 : FC

BAS20 : GC

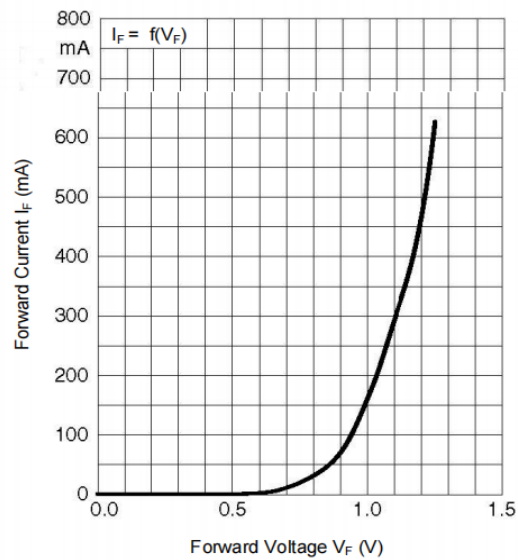
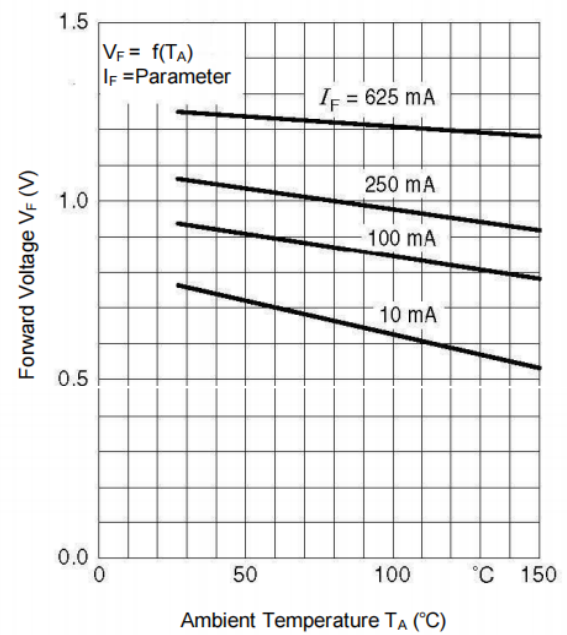
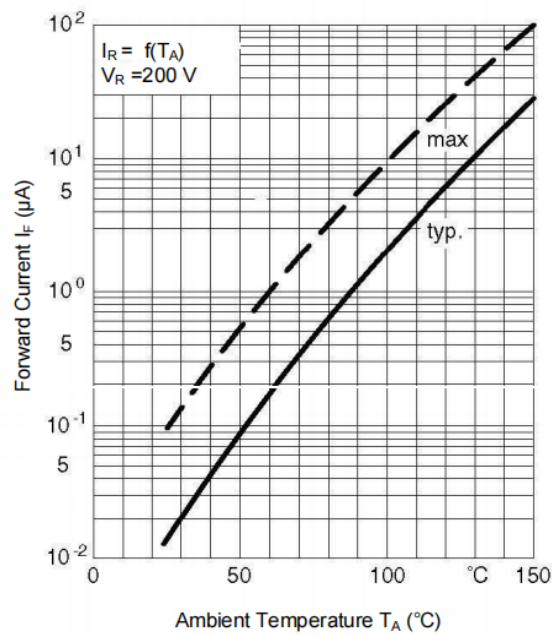
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$)

Parameter		Symbol	Value	Unit
Reverse Voltage	BAS19	V_{RRM}	120	V
	BAS20		200	
Continuous Forward Current		$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at $t=1\text{ s}$	I_{FSM}	0.5	A
	at $t=1\text{ }\mu\text{s}$		2.5	
Power Dissipation		P_D	350	mW
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Junction Temperature		T_J	150	$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Parameter		Symbol	Min.	Max.	Unit
Forward Voltage					
at $I_F = 100\text{ mA}$		V_F	--	1	V
at $I_F = 200\text{ mA}$			--	1.25	
Reverse Breakdown Voltage					
at $I_R = 100\text{ }\mu\text{A}$	BAS19	V_R	120	--	V
at $I_R = 100\text{ }\mu\text{A}$	BAS20		200	--	
Reverse Current					
at $V_R = 100\text{ V}$	BAS19		--	0.1	
at $V_R = 150\text{ V}$	BAS20	I_R	--	0.1	μA
at $V_R = 100\text{ V}$, at $T_J = 150^{\circ}\text{C}$	BAS19		--	100	
at $V_R = 150\text{ V}$, at $T_J = 150^{\circ}\text{C}$	BAS20		--	100	
Typical Junction Capacitance					
at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$		C_j	--	5	pF
Maximum Reverse Recovery Time					
at $I_F = I_R = 30\text{ mA}$, $I_{R(\text{REC})} = 3\text{ mA}$, $R_L = 100\text{ }\Omega$		T_{rr}	--	50	nS

Typical Characteristic Curves



Package Outline

SOT-23

Dimensions in mm

