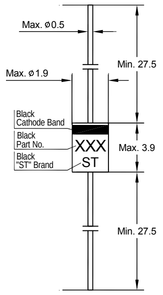
BAV19, BAV20, BAV21

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes



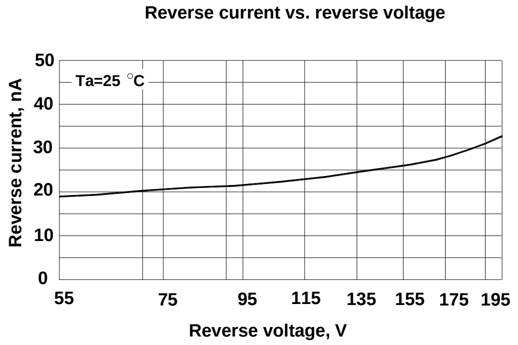
Glass Case DO-35
Dimensions in mm

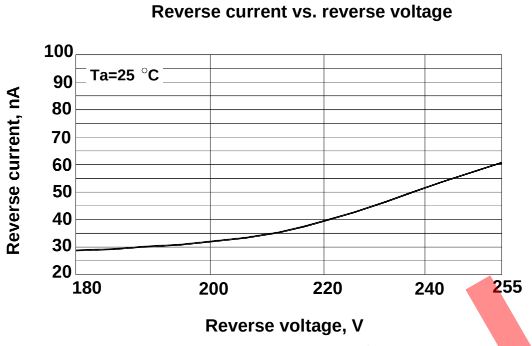
Absolute Maximum Ratings (T_a = 25℃)

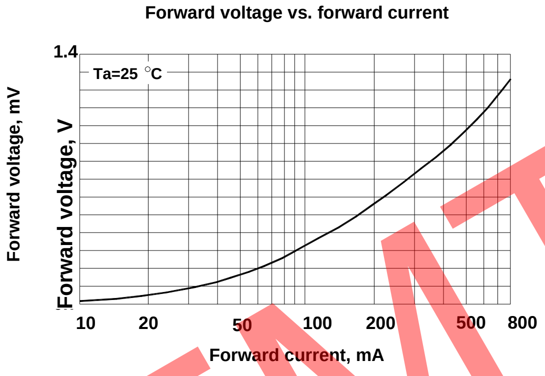
Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BAV19 BAV20 BAV21	V_{RRM}	120 200 250	V
Reverse Voltage	BAV19 BAV20 BAV21	V_R	100 150 200	V
Continuous Forward Current		I_F	250	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 100 μs at t = 1 μs	I_{FSM}	1 3 9	A
Total Power Dissipation		P_{tot}	500	mW
Junction Temperature		T_j	175	℃
Storage Temperature Range		T_{stg}	- 65 to + 175	℃

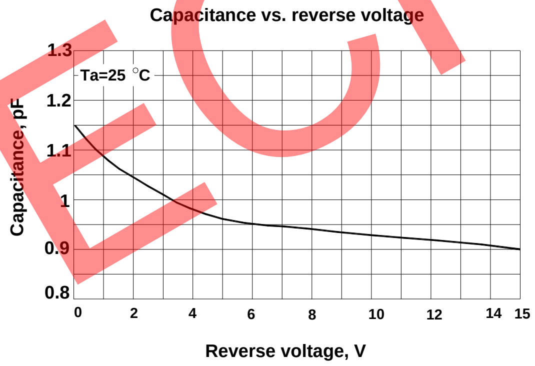
Characteristics at T_a = 25℃

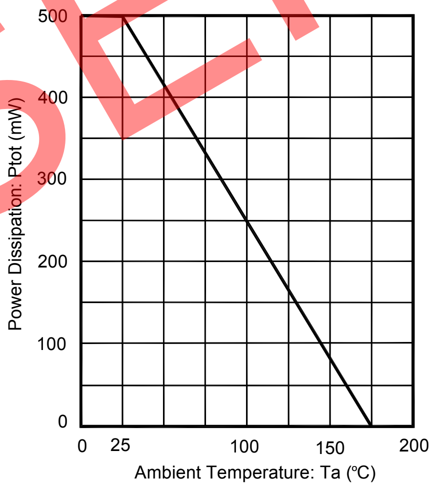
Parameter		Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	BAV19 BAV20 BAV21	$V_{(BR)R}$	120 200 250	- - -	V
Forward Voltage at I_F = 100 mA at I_F = 200 mA		V_F	- -	1 1.25	V
Reverse Current at V_R = 100 V at V_R = 150 V at V_R = 200 V at V_R = 100 V, T_A = 150℃ at V_R = 150 V, T_A = 150℃ at V_R = 200 V, T_A = 150℃	BAV19 BAV20 BAV21 BAV19 BAV20 BAV21	I_R	- - - - - -	100 100 100 100 100 100	nA nA nA μA μA μA
Diode Capacitance at V_R = 0 V, f = 1 MHz		C_d	-	5	pF
Reverse Recovery Time at I_F = I_R = 30 mA, I_{rr} = 3 mA, R_L = 100 Ω		t_{rr}	-	50	ns


Reverse current vs. reverse voltage


Reverse current vs. reverse voltage


Forward voltage vs. forward current


Capacitance vs. reverse voltage



Power Derating Curve