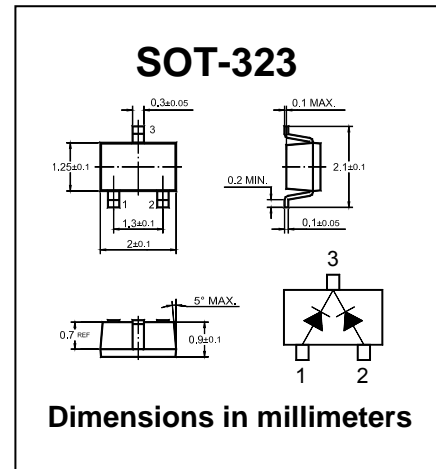


BAV70W

Silicon Epitaxial Planar Switching Diode

Features

- Fast switching diode
- Ultra small surface mount package



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

Parameter	Symbol	Value	Unit	
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V	
Reverse Voltage	V_R	75	V	
Continuous Forward Current	I_F	Single diode loaded Double diode loaded	175 100	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	0.5	A
		at $t = 1\text{ ms}$	1	
		at $t = 1\text{ }\mu\text{s}$	4	
Power Dissipation	P_{tot}	200	mW	
Junction Temperature	T_j	150	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$	

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{BR(R)}$	75	-	V
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	-	0.715	V
		-	0.855	
		-	1	
		-	1.25	
Reverse Leakage Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	I_R	-	30	nA
		-	2.5	μA
		-	60	μA
		-	100	μA
Diode Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	2	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$, $I_{rr} = 0.1 I_R$, $R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns

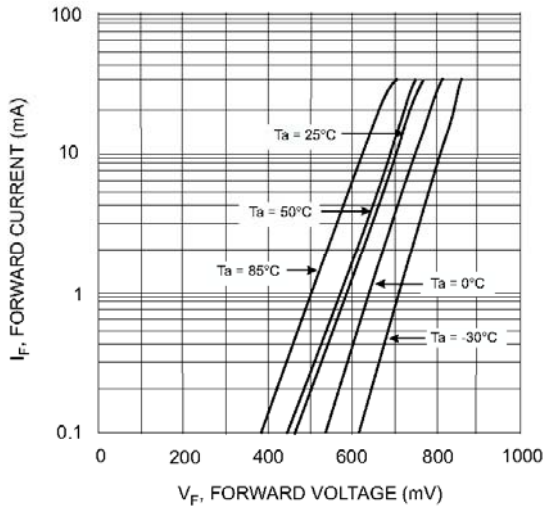


Fig. 1 Forward Current vs. Forward Voltage

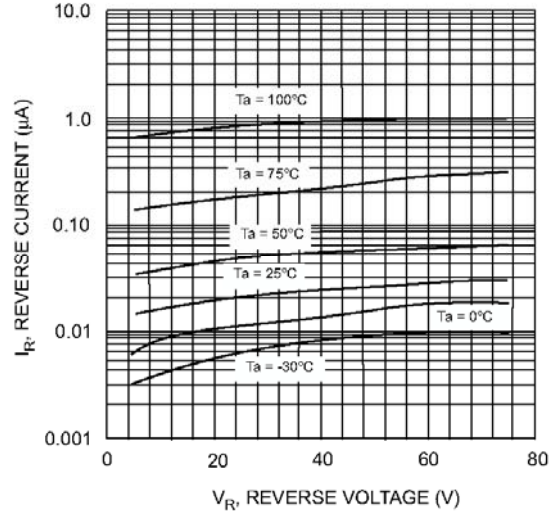


Fig. 2 Reverse Current vs Reverse Voltage

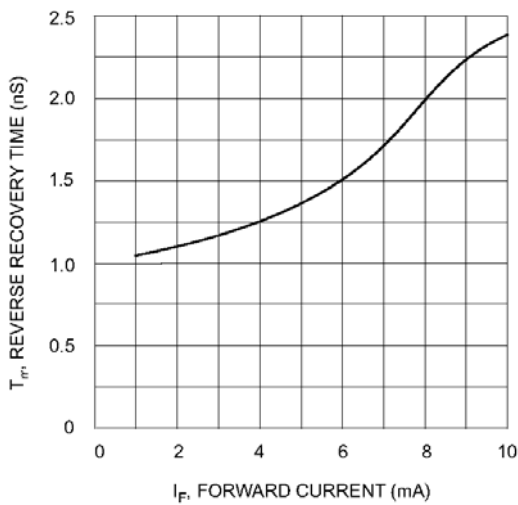


Fig. 3. Reverse Recovery Time vs. Forward Current

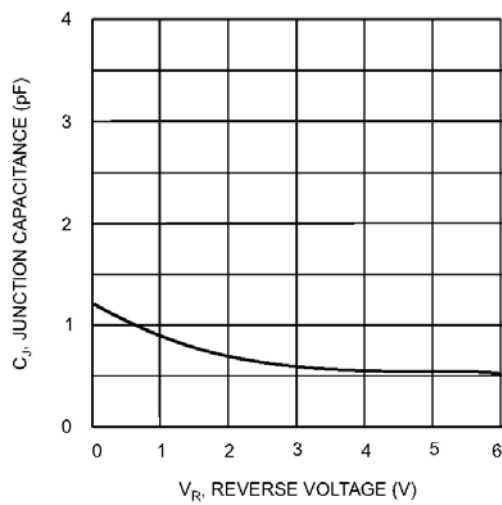


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage