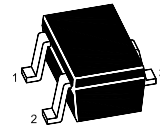
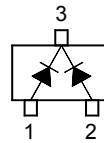


BAV70W

Silicon Epitaxial Planar Switching Diode

Features

- Fast switching diode
- Ultra small surface mount package



SOT-323 Plastic Package

Marking Code: PH

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Continuous Forward Current	I_F	175	mA
Single diode loaded		100	
Double diode loaded			
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5	A
at $t = 1$ s		1	
at $t = 1$ ms		4	
at $t = 1$ μ s			
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 $T_a = 25^\circ\text{C}$

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

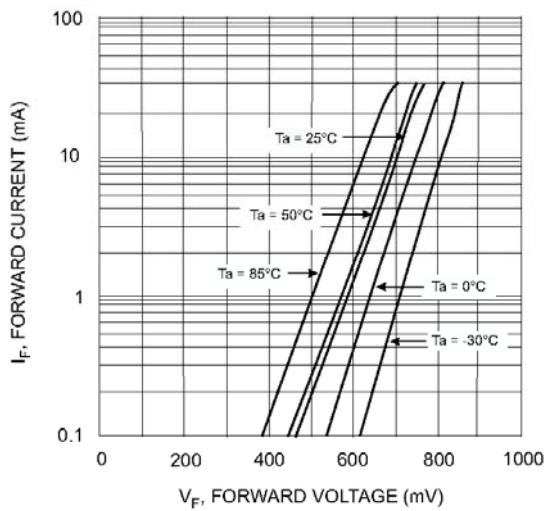


Fig. 1 Forward Current vs. Forward Voltage

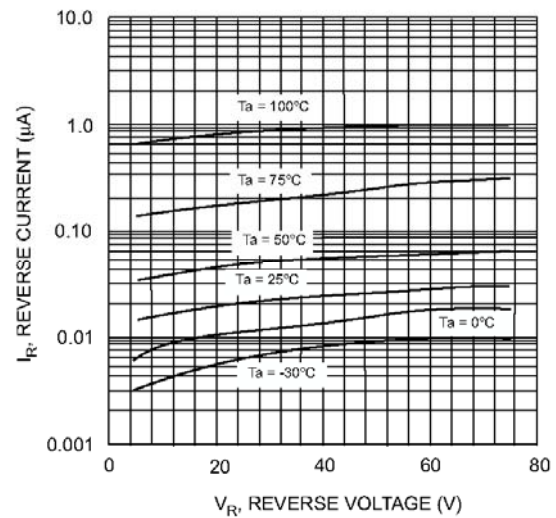


Fig. 2 Reverse Current vs. Reverse Voltage

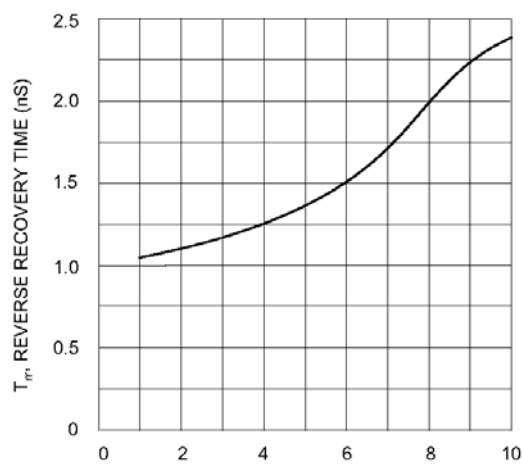


Fig. 3. Reverse Recovery Time vs. Forward Current

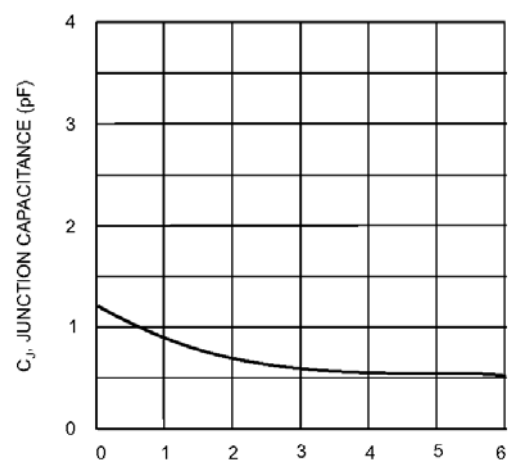


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage