

# BAV70W

## Silicon Epitaxial Planar Switching Diode

PRV : 70 Volts

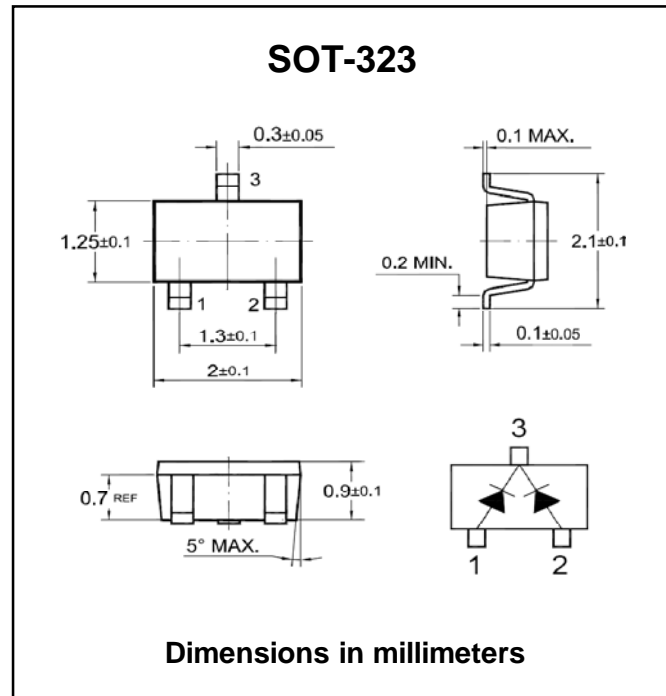
Io : 200 mA

### FEATURES :

- \* Fast switching diode
- \* Ultra small surface mount package
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : SOT-323 plastic Case
- \* Marking Code : PH



### Absolute Maximum Ratings (Ta = 25 °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	175
		Double diode loaded	100
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	at t = 1 s	1
		at t = 1 ms	1.0
		at t = 1 $\mu$ s	4.0
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

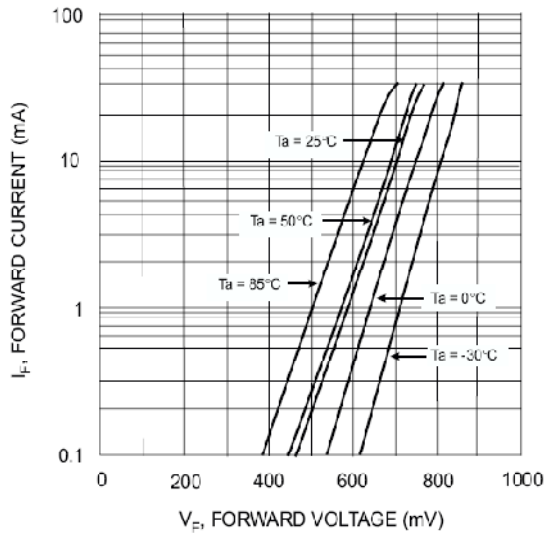


### ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

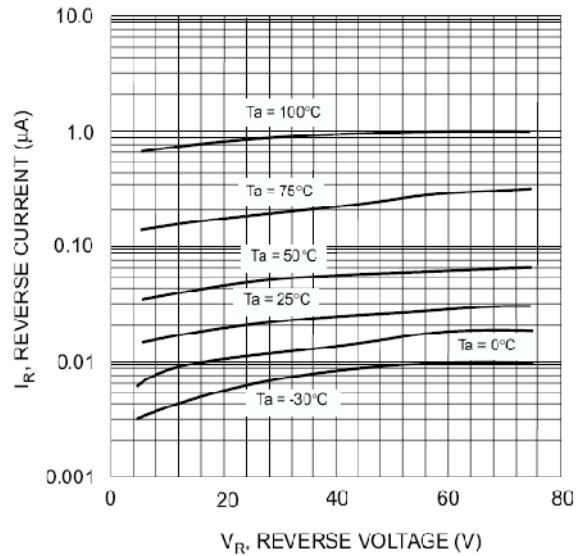
Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu A$	$V_{BR(R)}$	75	-	V
Forward Voltage	$I_F = 1 \text{ mA}$	$V_F$	-	715	mV
	$I_F = 10 \text{ mA}$		-	855	mV
	$I_F = 50 \text{ mA}$		-	1.00	V
	$I_F = 150 \text{ mA}$		-	1.25	V
Reverse Leakage Current	$V_R = 25 \text{ V}$	$I_R$	-	30	nA
	$V_R = 75 \text{ V}$		-	2.5	$\mu A$
	$V_R = 25 \text{ V ; } T_a = 150 \text{ }^\circ C$		-	60	$\mu A$
	$V_R = 75 \text{ V ; } T_a = 150 \text{ }^\circ C$		-	100	$\mu A$
Diode Capacitance	at $V_R = 0V, f = 1 \text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time	$I_F = 10 \text{ mA to } I_R = 10 \text{ mA,}$ $I_{rr} = 0.1 I_R, R_L = 100 \Omega$	$T_{rr}$	-	4	ns

**RATING AND CHARACTERISTIC CURVES ( BAV70W )**

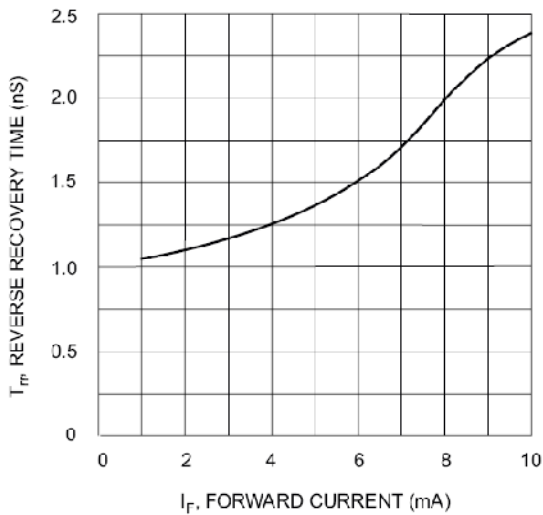
**Fig. 1 Forward Current vs. Forward Voltage**



**Fig. 2 Reverse Current vs Reverse Voltage**



**Fig. 3. Reverse Recovery Time vs. Forward Current**



**Fig. 4. Typical Junction Capacitance vs. Reverse Voltage**

