

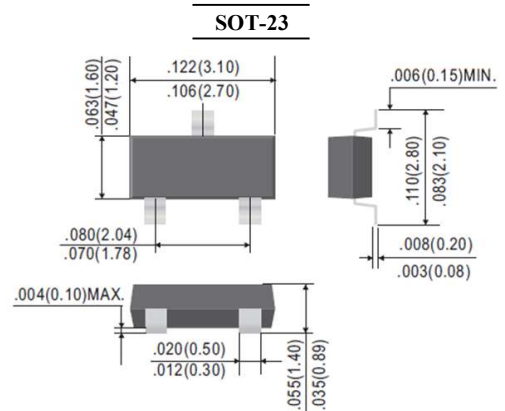
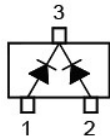


# BAV70

## SWITCHING DIODE

### FEATURES

- For high-speed switching applications
- Suffix "H" indicates Halogen-free parts, ex. BAV70H.



**Dimensions in inch and (millimeter)**

### Maximum Ratings ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Reverse voltage	$V_R$	75	V
Average Forward Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	$t = 1\ \mu\text{s}$	2.0
		$t = 1\ \text{s}$	1.0
Total Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min	Max	Unit
Reverse Breakdown Voltage	$I_R = 100\ \mu\text{A}$	$V_{BR(R)}$	75	-	V
Forward voltage	$I_F = 1\ \text{mA}$	$V_F$	-	715	mV
	$I_F = 10\ \text{mA}$		-	855	
	$I_F = 50\ \text{mA}$		-	1000	
	$I_F = 150\ \text{mA}$		-	1250	
Reverse Current	$V_R = 25\ \text{V}$	$I_R$	-	30	nA
	$V_R = 75\ \text{V}$		-	2.5	$\mu\text{A}$
	$V_R = 25\ \text{V}, T_j = 150\text{ }^\circ\text{C}$		-	60	$\mu\text{A}$
	$V_R = 75\ \text{V}, T_j = 150\text{ }^\circ\text{C}$		-	100	$\mu\text{A}$
Diode Capacitance	$V_R = 0\ \text{V}, f = 1\ \text{MHz}$	$C_d$	-	2.0	pF
Reverse recovery time	$I_F = 10\ \text{mA}, V_R = 6\ \text{V}, I_{rr} = 1\ \text{mA}, R_L = 100\ \Omega$	$t_{rr}$	-	4	nS



# BAV70 SWITCHING DIODE

## RATINGS AND CHARACTERISTIC CURVES

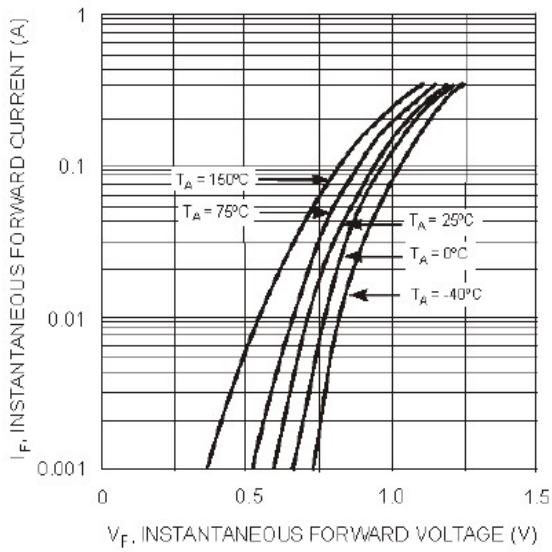


Fig. 1 Forward Characteristics

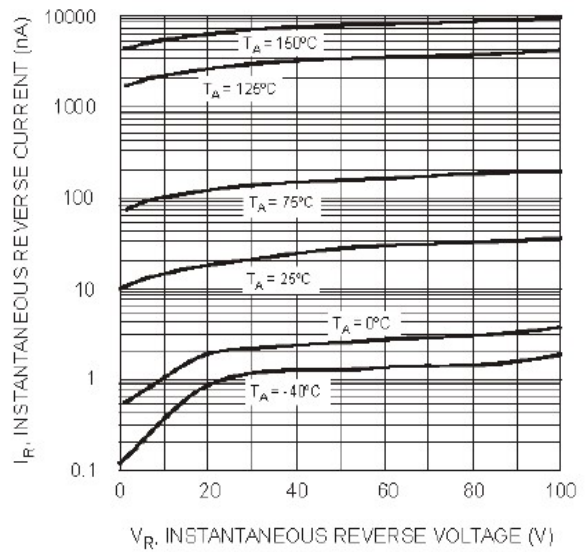


Fig. 2 Typical Reverse Characteristics

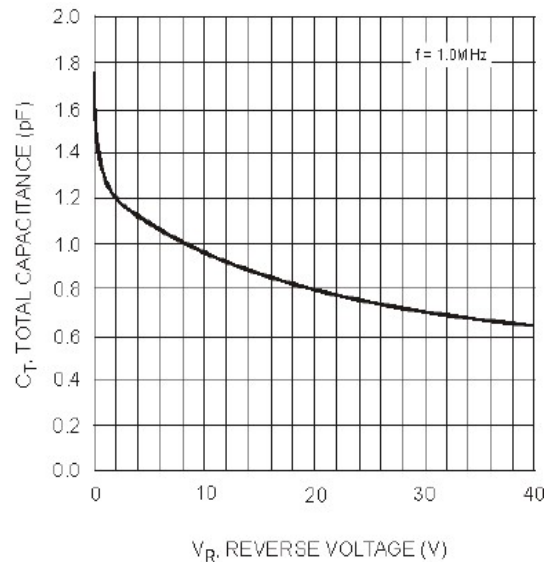


Fig. 3 Typical Capacitance vs. Reverse Voltage

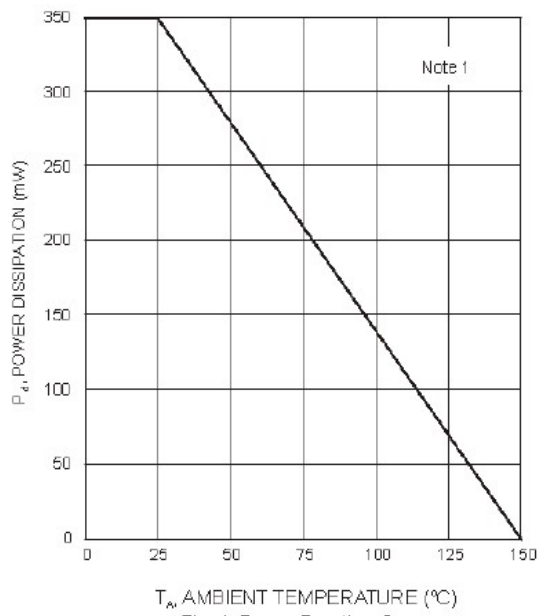


Fig. 4 Power Derating Curve