

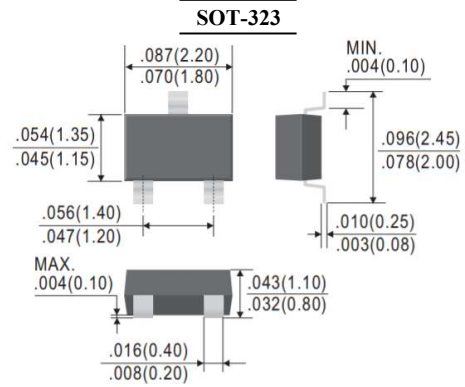
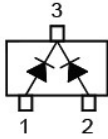


# BAV70WH

## SWITCHING DIODE

### FEATURES

- For high-speed switching applications
- Suffix "H" indicates Halogen-free parts, ex. BAV70WH.



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
Continuous Forward Current	Single Diode Load	150	mA
	Double Diode Load	100	
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current	$t = 1\ \mu\text{s}$	4	A
	$t = 1\ \text{ms}$	1	
	$t = 1\ \text{s}$	0.5	
Total Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

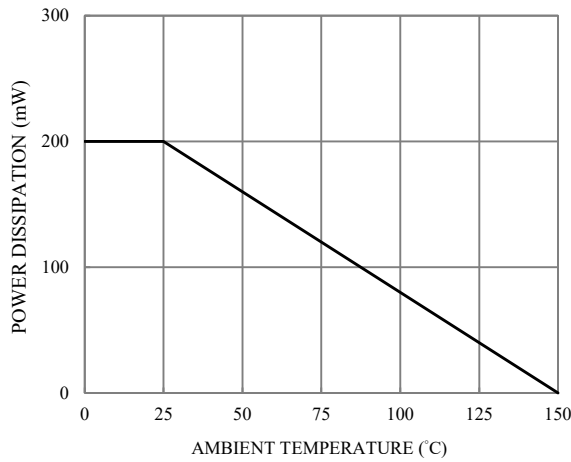
### Electrical Characteristics ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

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	$\mu\text{A}$
Total Capacitance	$V_R = 0\ \text{V}, f = 1\ \text{MHz}$	$C_T$	-	2	pF
Reverse recovery time	$I_F = I_R = 10\ \text{mA}, I_{tr} = 0.1 \times I_R, R_L = 100\ \Omega$	$t_{rr}$	-	4	ns

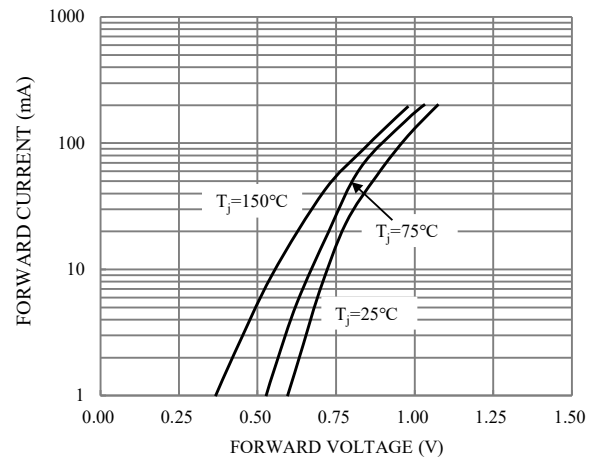


# BAV70WH SWITCHING DIODE

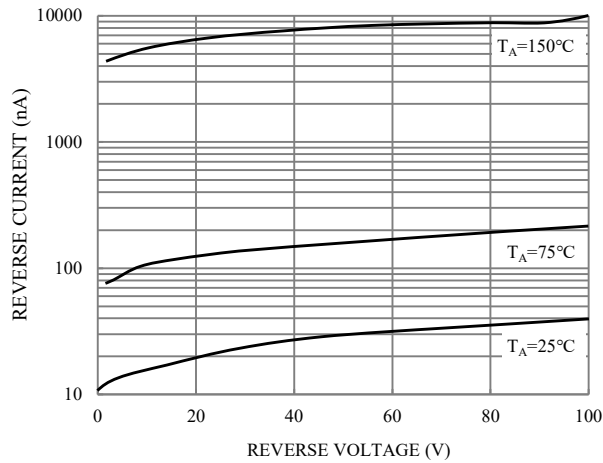
## RATINGS AND CHARACTERISTIC CURVES



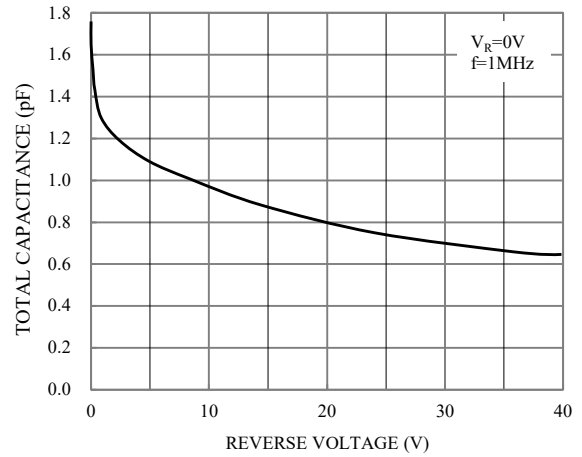
**Fig.1-POWER DERATING CURVE**



**Fig.2-TYPICAL FORWARD CHARACTERISTICS**



**Fig.3-TYPICAL REVERSE CHARACTERISTICS**

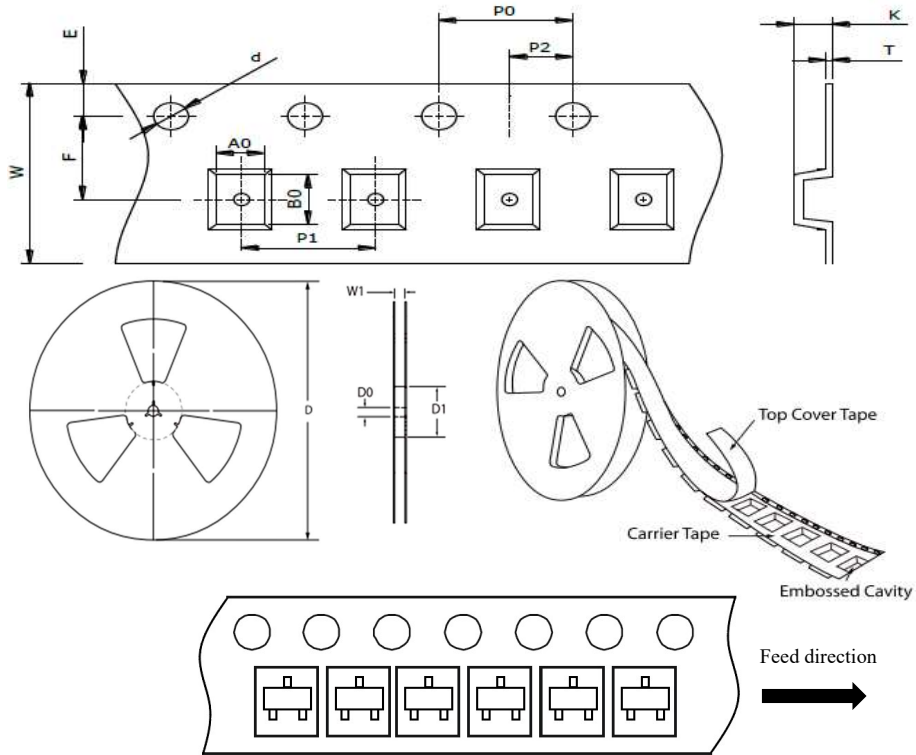


**Fig.4-TOTAL CAPACITANCE**



# BAV70WH SWITCHING DIODE

## TAPE & REEL SPECIFICATION



Item	Symbol	SOT-323
Carrier width	A <sub>0</sub>	2.30 ± 0.10
Carrier length	B <sub>0</sub>	2.55 ± 0.10
Carrier depth	K	1.20 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.50
Reel inner diameter	D <sub>1</sub>	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W <sub>1</sub>	MAX. 14.50

## ORDER INFORMATION

Package	Reel Size	Quantity
SOT-323	7"	3,000

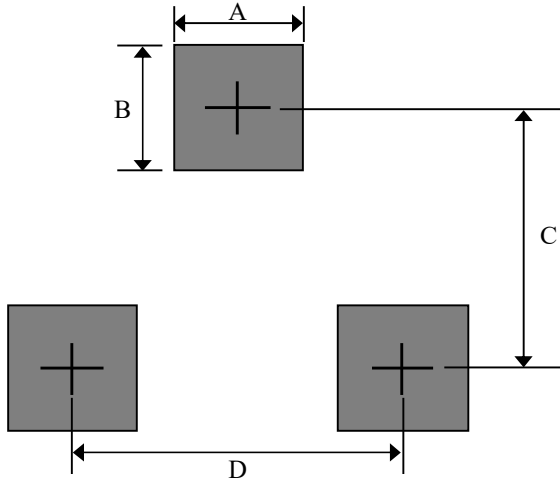
## MARKING CODE

Part Number	Marking Code
BAV70WH	PH



# BAV70WH SWITCHING DIODE

## SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOT-323	0.80	0.80	1.60	1.30