



# BAV19WH / BAV20WH / BAV21WH

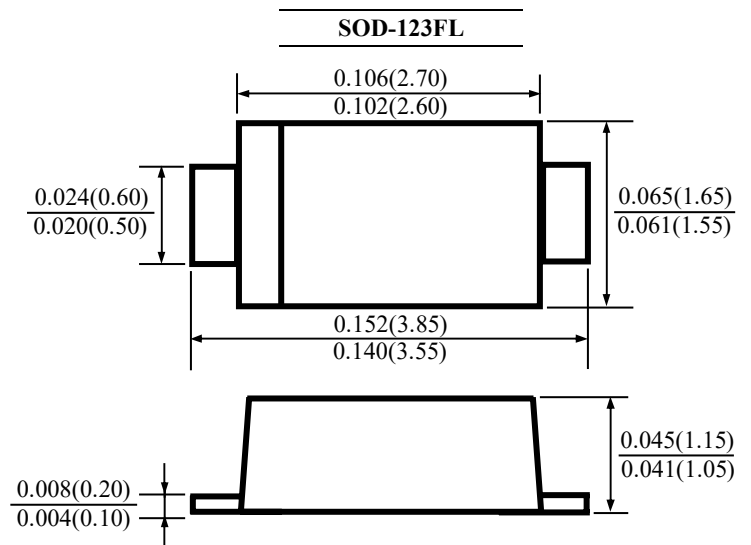
## SWITCHING DIODES

### FEATURES

- High breakdown voltage
- Low forward voltage
- Suffix "H" indicates Halogen-free parts, ex. BAV19WH

### MECHANICAL DATA

Case : SOD-123FL  
 Epoxy : UL 94V-O rate flame retardant  
 Polarity : Indicated by cathode band  
 Mounting position : Any



Dimensions in inch and (millimeter)

### Maximum Ratings@ $T_A = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	BAV19WH	120	V	
	BAV20WH	200		
	BAV21WH	250		
Reverse Voltage	BAV19WH	100	V	
	BAV20WH	150		
	BAV21WH	200		
Continuous Forward Current	$I_F$	200	mA	
Surge Forward Current	$I_{FSM}$	at $t=1\text{ms}$	2.5	A
		at $t=1\text{s}$	0.5	
Power Dissipation	$P_{tot}$	250	mW	
Operating Junction Temperature	$T_J$	-65 to +150	$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-65 to +150	$^\circ\text{C}$	



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### Electrical Characteristics@ $T_A = 25\text{ }^\circ\text{C}$

Parameter	Test Condition	Symbol	Min.	Max.	Units	
Breakdown Voltage	BAV19WH	$V_{(BR)R}$	120	-	V	
	BAV20WH		200	-		
	BAV21WH		250	-		
Reverse Leakage Current	BAV19WH	$I_R$	-	100	nA	
	BAV20WH					$V_R=100\text{V}$
	BAV21WH					$V_R=150\text{V}$
Forward Voltage	$I_F=100\text{mA}$	$V_F$	-	1.00	V	
	$I_F=200\text{mA}$		-	1.25		
Total Capacitance	$V_R=0\text{V}$ , $f=1\text{MHz}$	$C_T$	-	5	pF	
Reverse Recovery Time	$I_F=I_R=30\text{mA}$ $I_{tr}=0.1 \times I_R$ , $R_L=100\Omega$	$t_{tr}$	-	50	ns	



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## SWITCHING DIODES

### RATINGS AND CHARACTERISTIC CURVES

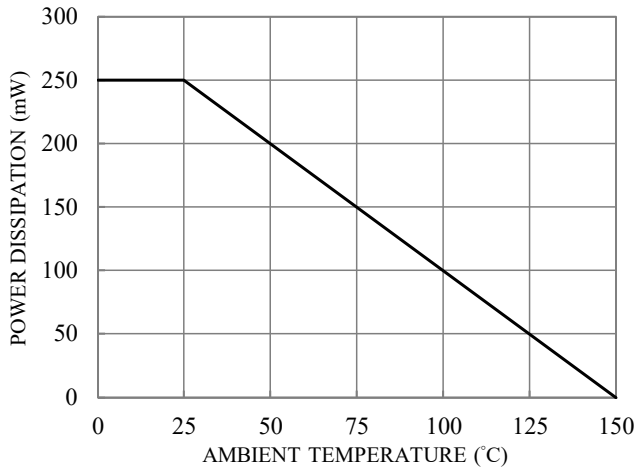


Fig.1-POWER DERATING CURVE

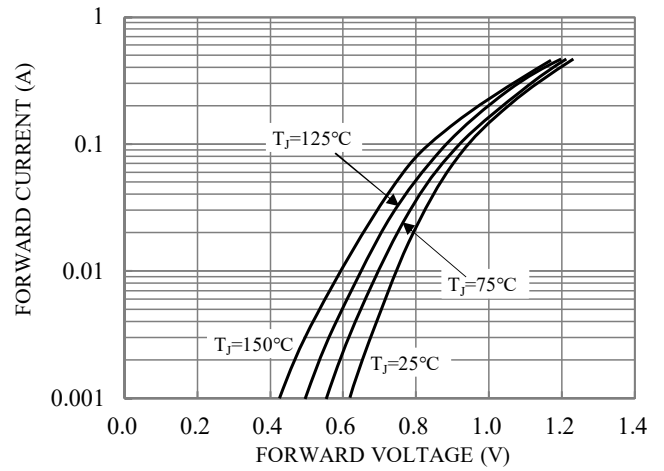


Fig.2-TYPICAL FORWARD CHARACTERISTICS

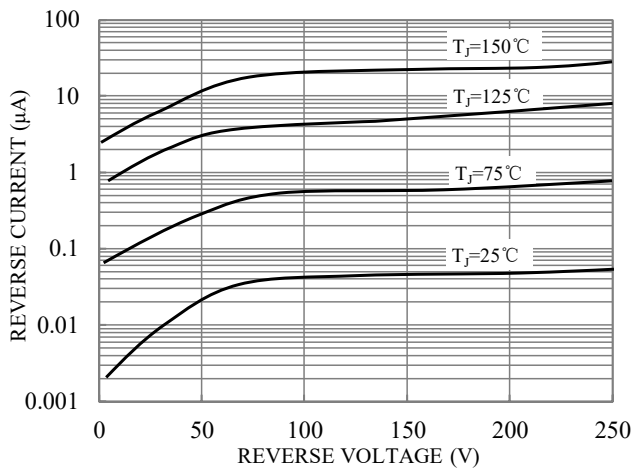


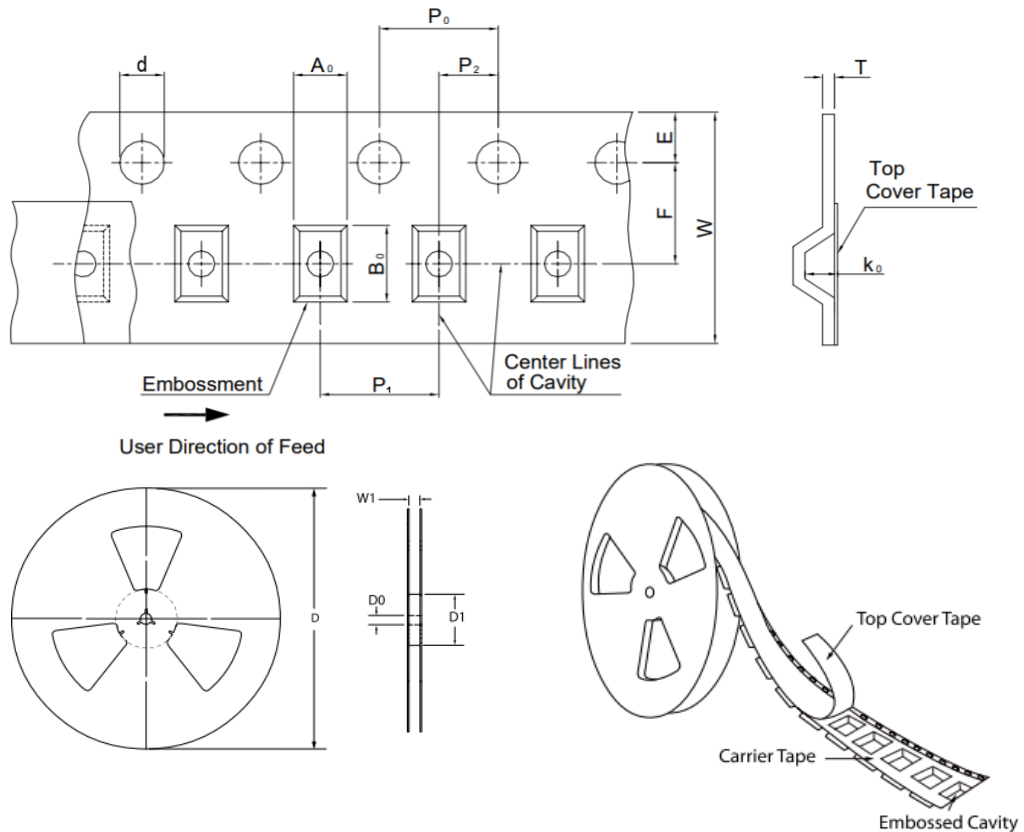
Fig.3-TYPICAL REVERSE CHARACTERISTICS



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## SWITCHING DIODES

### RATINGS AND CHARACTERISTIC CURVES



Unit: mm

Item	Symbol	SOD-123FL
Carrier width	$A_0$	$1.85 \pm 0.10$
Carrier length	$B_0$	$4.05 \pm 0.10$
Carrier depth	$K_0$	$1.95 \pm 0.10$
Sprocket hole	$d$	$1.50 \pm 0.10$
Reel outside diameter	$D$	$178.00 \pm 2.00$
Feed hole width	$D_0$	$13.00 \pm 0.50$
Reel inner diameter	$D_1$	MIN. 50.00
Sprocket hole position	$E$	$1.75 \pm 0.10$
Punch hole position	$F$	$3.50 \pm 0.10$
Sprocket hole pitch	$P_0$	$4.00 \pm 0.10$
Punch hole pitch	$P_1$	$4.00 \pm 0.10$
Embossment center	$P_2$	$2.00 \pm 0.10$
Overall tape thickness	$T$	MAX. 0.60
Tape width	$W$	$8.00 \pm 0.20$
Reel width	$W_1$	MAX. 14.50

### ORDER INFORMATION

Package	Reel Size	Quantity
SOD-123FL	7"	3,000

### MARKING CODE

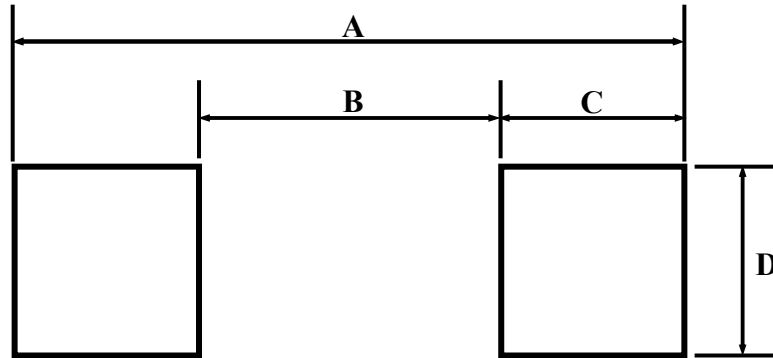
Part Number	Marking Code
BAV19WH	JX / H1
BAV20WH	JX / H2
BAV21WH	JX / H3



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### SUGGESTED SOLDER PAD LAYOUT



PACKAGE	A	B	C	D
SOD-123FL	3.90	2.20	0.85	1.20