

## BAV19W-HF/20W-HF

RoHS Device  
Halogen Free

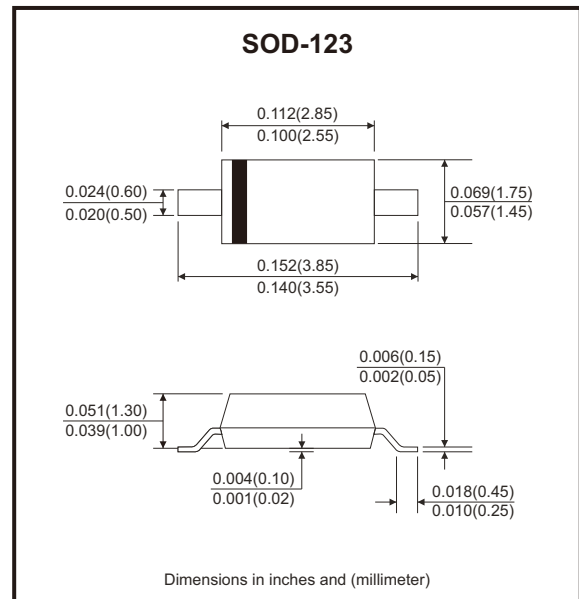


### Features

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.

### Mechanical data

- Case: Molded plastic, SOD-123.
- Polarity: Cathode line denotes the cathode end.



### Circuit Diagram



### Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	BAV19W-HF	BAV20W-HF	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	120	200	V
Peak repetitive reverse voltage	$V_{RRM}$	100	150	V
Working peak reverse voltage	$V_{RWM}$			
DC reverse voltage	$V_R$			
RMS reverse voltage	$V_{R(RMS)}$	71	106	V
Average rectified output current	$I_o$	200		mA
Non-repetitive peak forward surge current	$I_{FSM}$	@ t = 1μs	2.5	A
		@ t = 1s	0.5	
Power dissipation	$P_D$	250		mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500		°C/W
Operating and storage temperature range	$T_J, T_{STG}$	-65 to +150		°C

## Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse breakdown voltage	BAV19W-HF BAV20W-HF	$V_{(BR)R}$ $I_R = 100\mu A$	120 200		V
Forward voltage		$V_F$ $I_F = 100mA$ $I_F = 200mA$		1.0 1.25	V
Reverse current	BAV19W-HF BAV20W-HF	$I_R$ $V_R = 100V$ $V_R = 150V$		0.1	$\mu A$
Junction capacitance		$C_J$ $V_R = 0V, f = 1MHz$		5.0	pF
Reverse recovery time		$t_{rr}$ $I_F = I_R = 30mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		50	nS

## Rating and Characteristic Curves (BAV19W-HF/20W-HF)

Fig.1 - Forward Characteristics

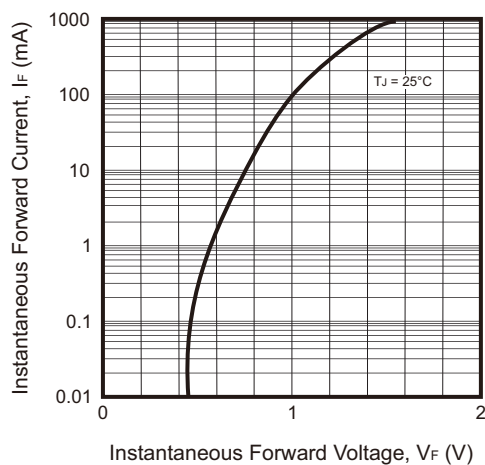
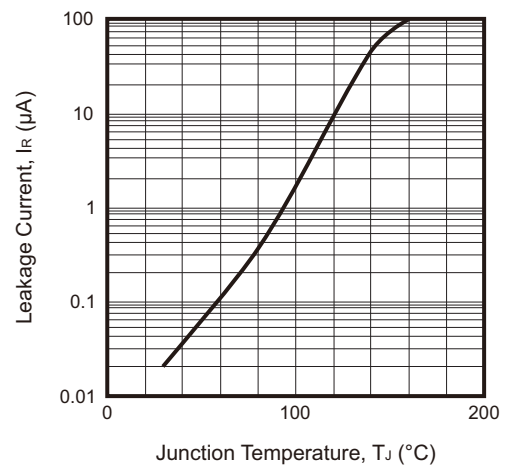
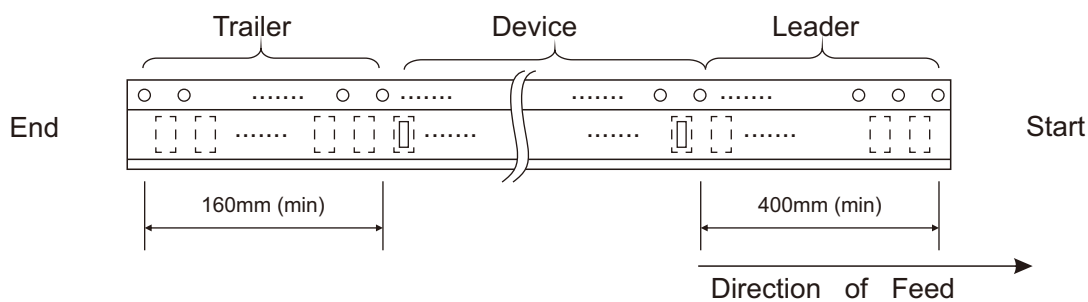
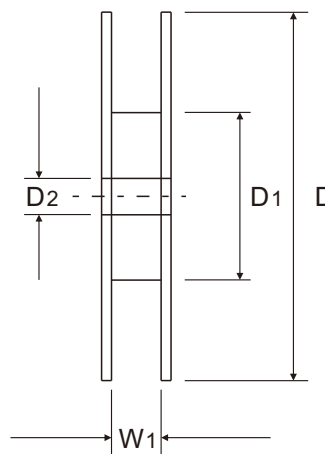
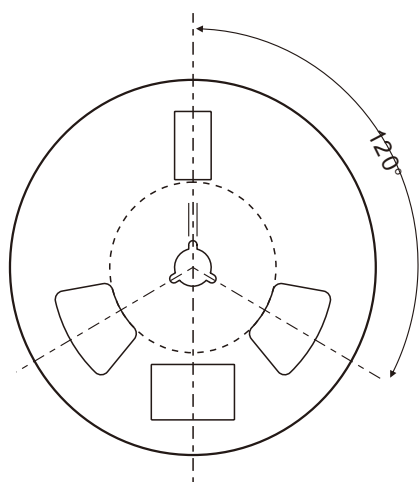
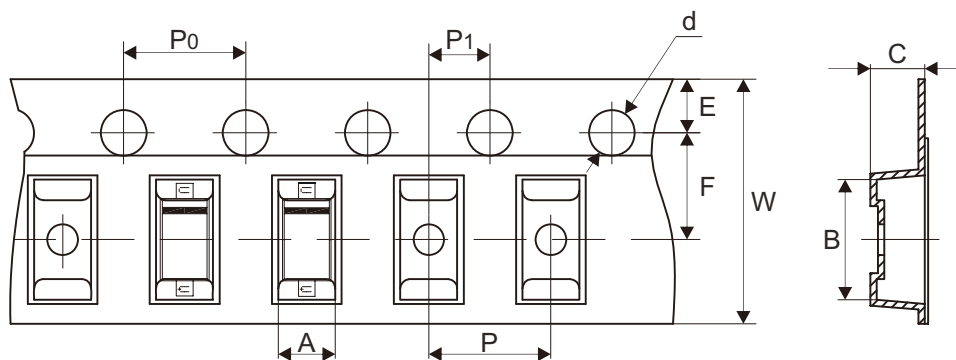


Fig.2 - Leakage Current vs Junction Temperature



## Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-123	SYMBOL	E	F	P	P1	P0	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.157 ± 0.004	0.315 + 0.012 - 0.004	0.374 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

## Marking Code

Part Number	Marking Code
BAV19W-HF	A8
BAV20W-HF	T2

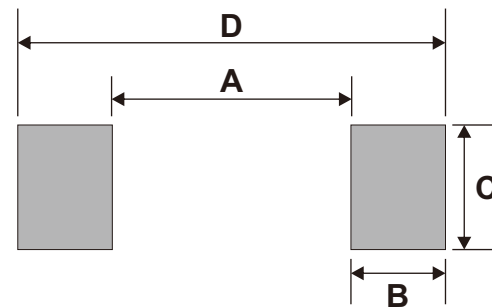


█ = Cathode band

xx = Product type marking code

## Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	2.36	0.093
B	0.91	0.036
C	1.22	0.048
D	4.19	0.165



Note: 1. The pad layout is for reference purposes only.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-123	3,000	7

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