

BAV19W-HF/20W-HF

RoHS Device
Halogen Free

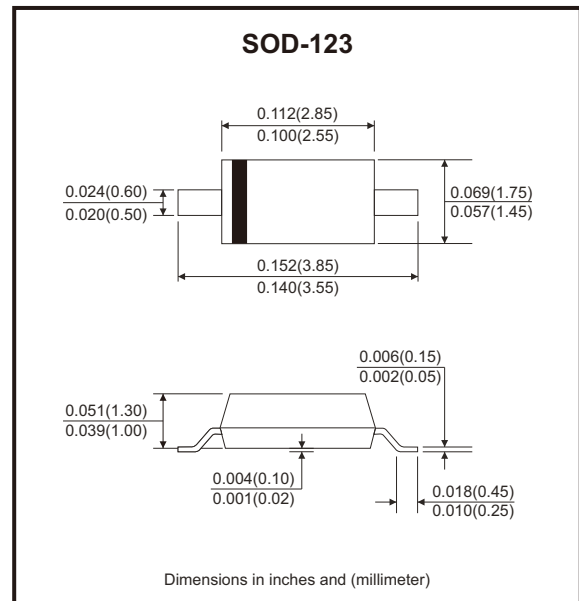


Features

- 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	μA
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

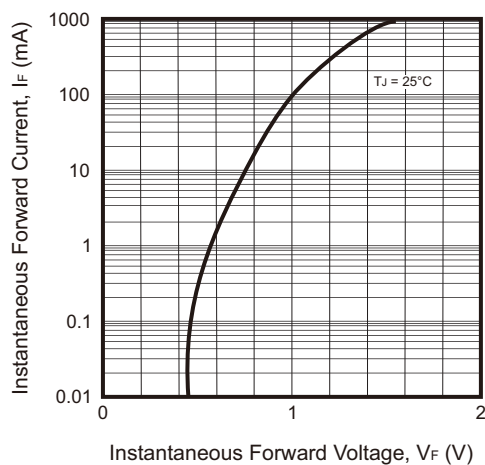
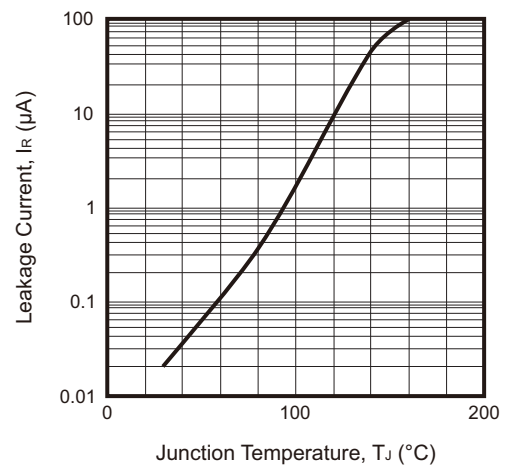
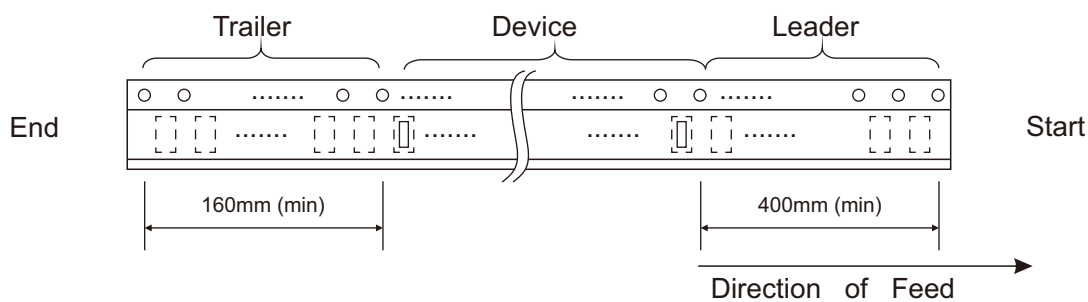
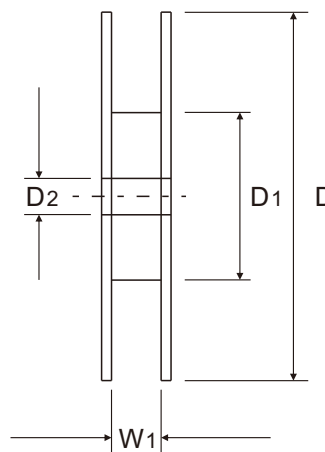
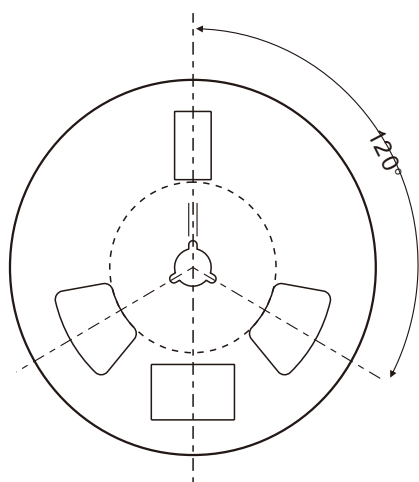
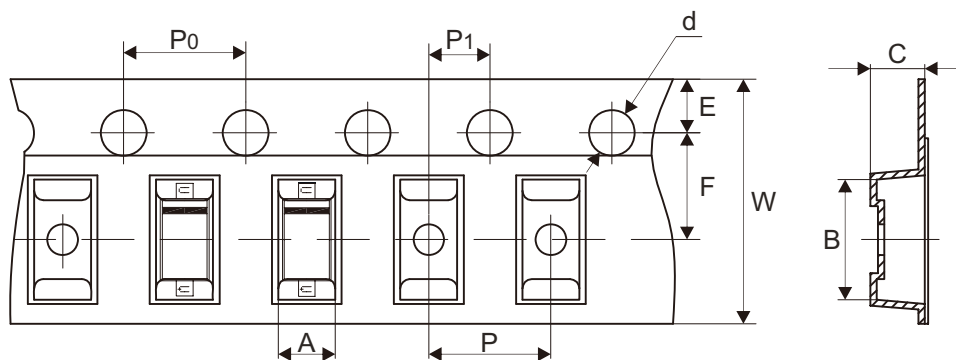


Fig.2 - Leakage Current vs Junction Temperature



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

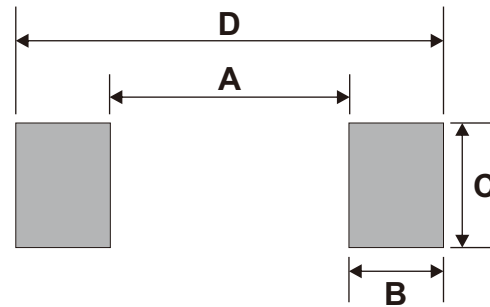
Part Number	Marking Code
BAV19W-HF	A8
BAV20W-HF	T2



= 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