



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

BAV19W, BAV20W, BAV21W

SURFACE MOUNT SWITCHING DIODES

Features

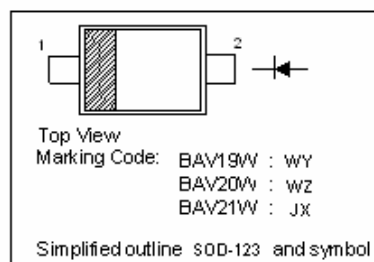
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications

Mechanical Data:

- Case: SOD-123, Molded Plastic.
- Moisture Sensitivity : Level 1per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208

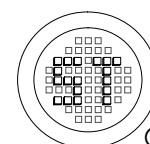
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings (Ta = 25°C)

		Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	BAV19W	V_{RM}	120	V
	BAV20W	V_{RM}	200	V
	BAV21W	V_{RM}	250	V
Repetitive Peak Reverse Voltage	BAV19W	V_{RRM}	100	V
	BAV20W	V_{RRM}	150	V
	BAV21W	V_{RRM}	200	V
Working Peak Reverse Voltage	BAV19W	V_{RWM}	100	V
	BAV20W	V_{RWM}	150	V
	BAV21W	V_{RWM}	200	V
RMS Reverse Voltage	BAV19W	$V_{R(RMS)}$	71	V
	BAV20W	$V_{R(RMS)}$	106	V
	BAV21W	$V_{R(RMS)}$	141	V
DC Blocking Voltage	BAV19W	V_R	100	V
	BAV20W	V_R	150	V
	BAV21W	V_R	200	V
Average Rectified Output Current		I_O	200	mA
Forward Continuous Current		I_{FM}	400	mA
Repetitive Peak Forward Surge Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	@ t = 1ms	I_{FSM}	2.5	A
	@ t = 1.0 s	I_{FSM}	0.5	A
Power Dissipation		P_{tot}	250	mW
Thermal Resistance, Junction to Ambient		$R_{\theta JA}$	500	°C/W
Junction Temperature		T_j	-65 to +150	°C
Storage Temperature Range		T_s	-65 to +150	°C





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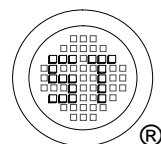
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Characteristics at $T_A = 25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage					
at $I_R = 100\mu\text{A}$ BAV19W	$V_{(BR)R}$	120	-	-	V
at $I_R = 100\mu\text{A}$ BAV20W	$V_{(BR)R}$	200	-	-	V
at $I_R = 100\mu\text{A}$ BAV21W	$V_{(BR)R}$	250	-	-	V
Peak Reverse Current					
@ Rated DC Blocking Voltage					
at $T_j = 25^\circ\text{C}$	I_{RM}	-	-	100	nA
at $T_j = 100^\circ\text{C}$		-	-	15	μA
Forward Voltage					
at $I_F = 100\text{mA}$	V_{FM}	-	-	1.0	V
at $I_F = 200\text{mA}$	V_{FM}	-	-	1.25	V
Total Capacitance					
at $f = 1\text{MHz}$	C_T	-	-	5.0	pF
Reverse Recovery Time					
at $I_F = I_R = 30\text{mA}$, $I_{RR} = 0.1 * I_R$, $R_L = 100\Omega$	t_{rr}	-	-	50	ns



Dated : 29/07/2005



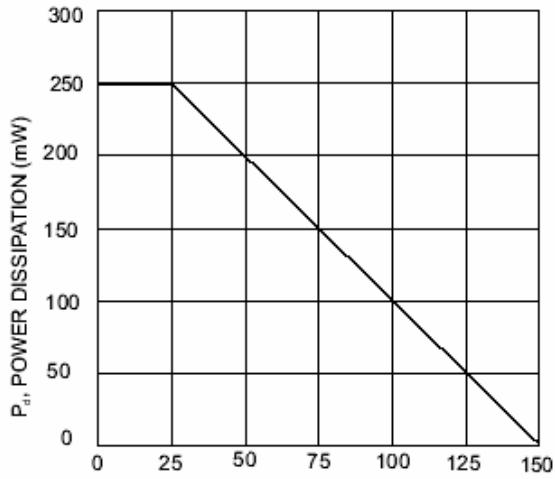
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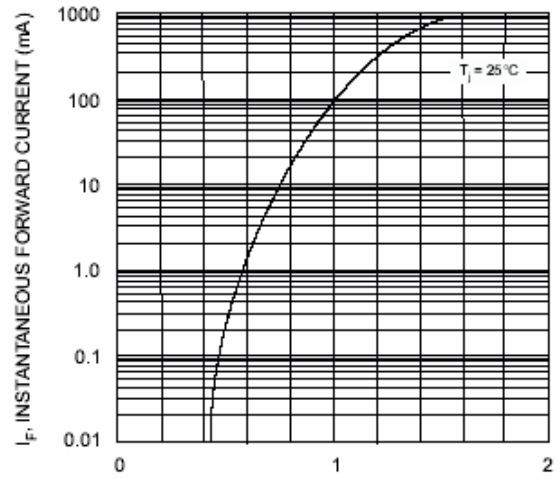
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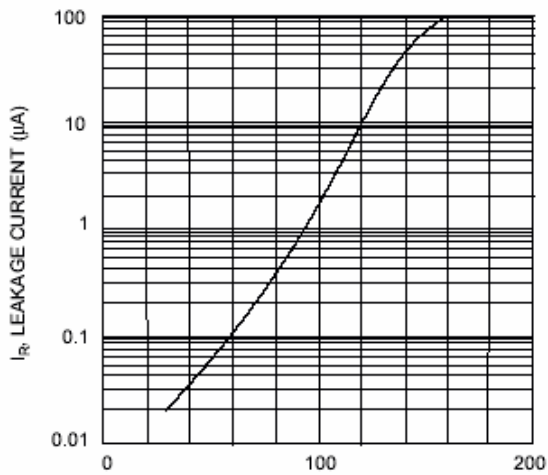
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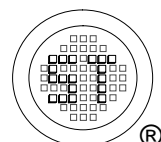
T_A , AMBIENT TEMPERATURE ($^{\circ}$ C)
Fig. 1 Power Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



T_j , JUNCTION TEMPERATURE ($^{\circ}$ C)
Fig. 3 Leakage Current vs Junction Temperature





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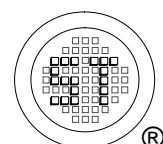
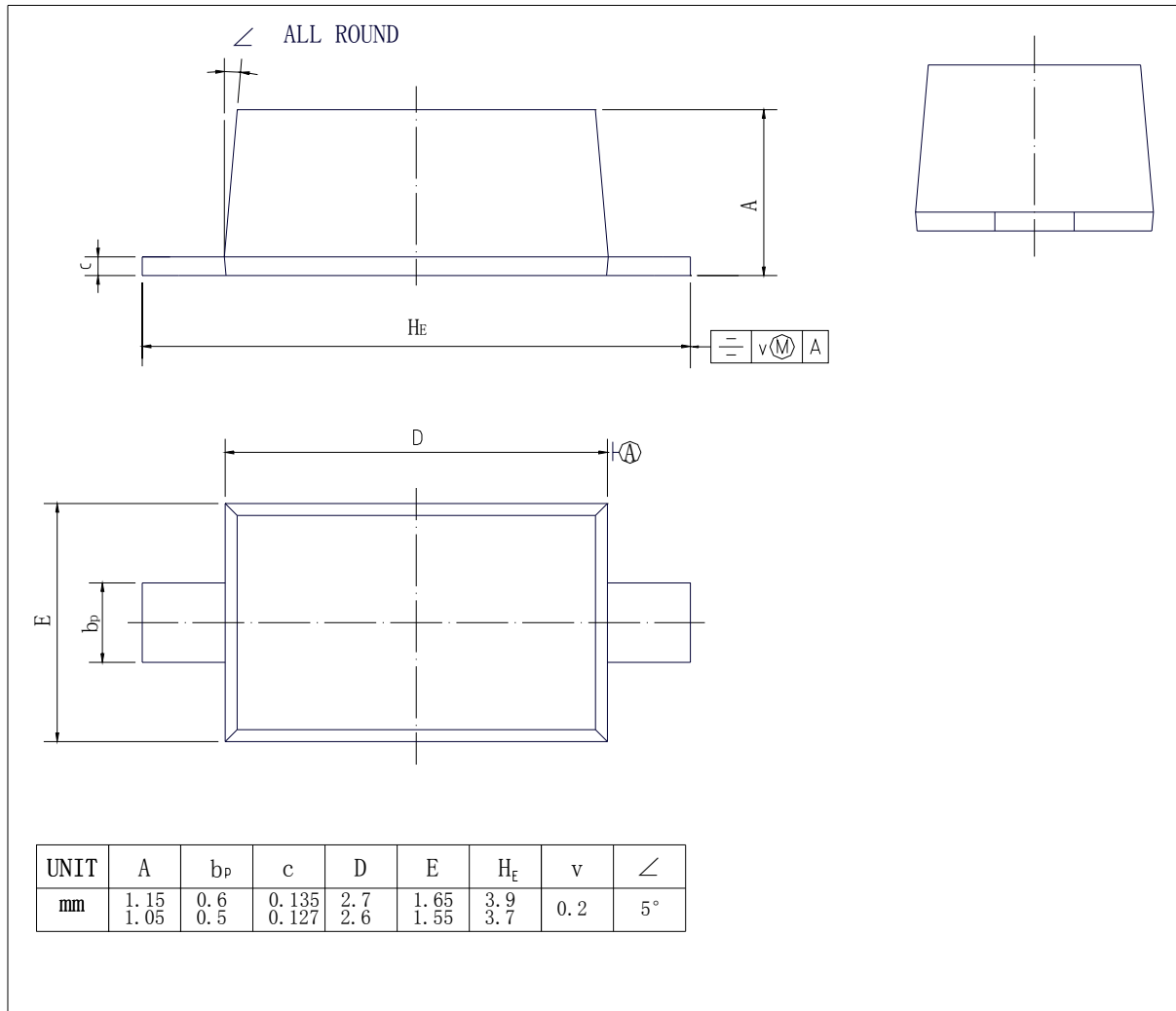
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PACKAGE OUTLINE

SOD-123



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