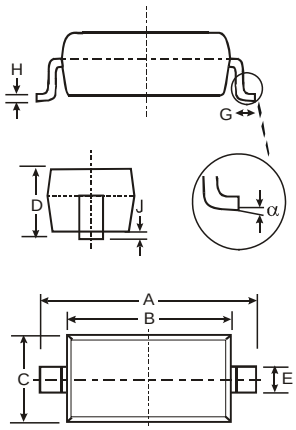
HAICHUANG SEMI

BAV19W～BAV21W

SURFACE MOUNT FAST SWITCHING DIODE

Features

- Fast Switching Speed.
- Surface Mount Package Switching Applications.
- High Conductance.



SOD-123		
Dim	**Min**	**Max**
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.45	0.65
	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

DEVICE	MARKING
BAV19W	A8
BAV20W	T2
BAV21W	T3

Maximum Ratings @ T_A = 25°C unless otherwise specified

Symbol	Parameter	Value			Unit
		BAV19W	BAV20W	BAV21W	
V_{RM}	Non-Repetitive Peak Reverse Voltage	120	200	250	V
V_{RRM}	Peak Repetitive Reverse Voltage	100	150	200	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
I_O	Average Rectified Output Current	200			mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	2.0			A
P_D	Power Dissipation	500			mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	250			℃/W
T_j	Junction Temperature	150			℃
T_{stg}	Storage Temperature	-55~+150			℃

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse current	I_R	V_R=100V	BAV19W			0.1	uA
		V_R=150V	BAV20W			0.1	
		V_R=200V	BAV21W			0.1	
Forward voltage	V_F	I_F=100mA				1	V
		I_F=200mA				1.25	
Total capacitance	C_{tot}	V_R=0V,f=1MHz				5	pF
Reverse recovery time	t_{rr}	I_F= I_R =30mA, I_{rr}=0.1*I_R , R_L=100Ω				50	ns

TYPICAL TRANSIENT CHARACTERISTICS

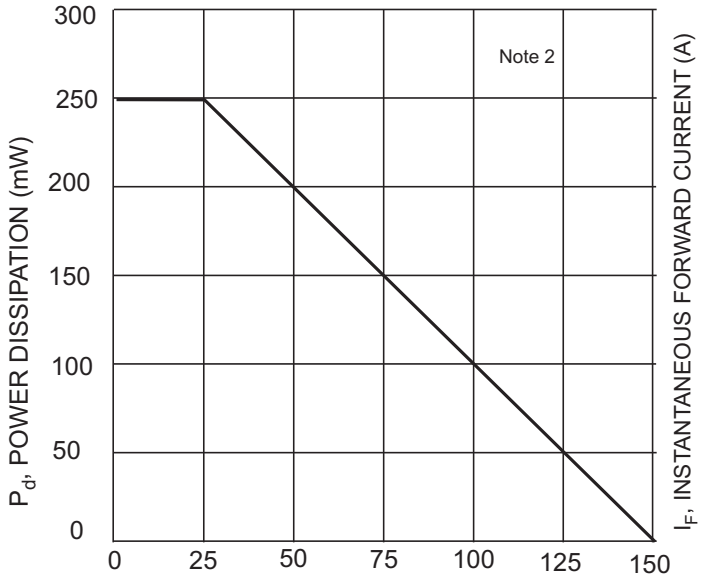


Fig. 1 Power Derating Curve

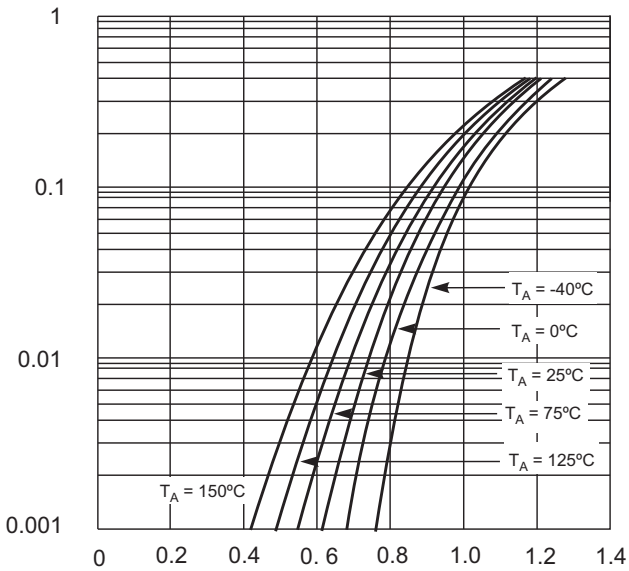


Fig. 2 Typical Forward Characteristics

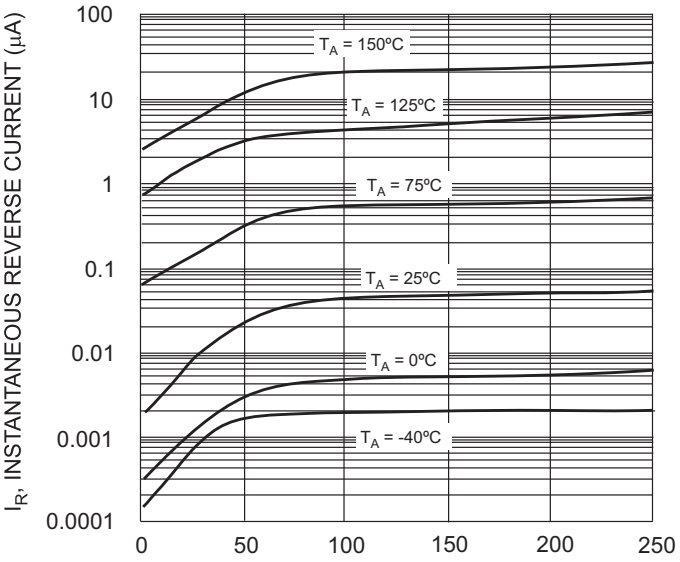


Fig. 3 Typical Reverse Characteristics

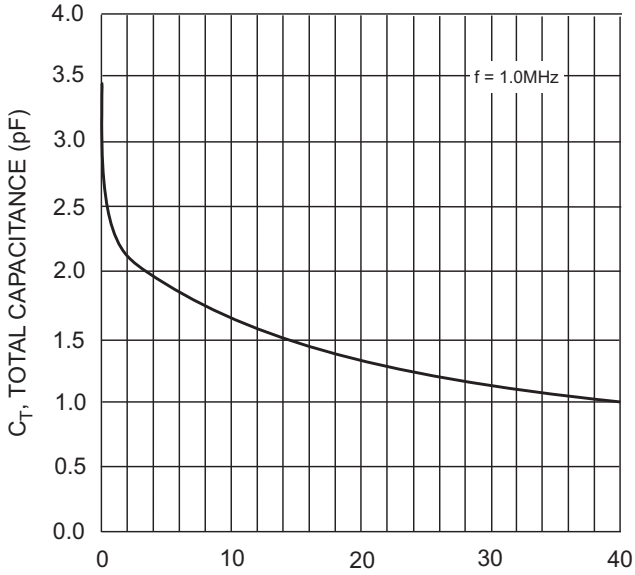


Fig. 4 Typical Capacitance vs. Reverse Voltage

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