Data Sheet

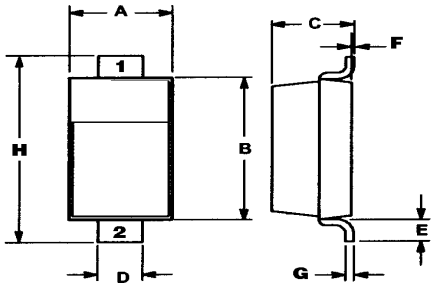
250mW SMD Fast Switch Diode

BAV19~21W

Description



SOD-123



Mechanical Dimensions

DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX
A	0.055	0.071	1.40	1.80
B	0.100	0.112	2.55	2.85
C	0.037	0.053	0.95	1.35
D	0.020	0.028	0.50	0.70
E	0.004		0.25	
F	0.000	0.004	0.00	0.10
G		0.006		0.15
H	0.140	0.152	3.55	3.85

FEATURES

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

MARKING: BAV19W: A8
BAV20W: T2
BAV21W: T3

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25℃

Parameter	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	120	200	250	V
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Forward Continuous Current	I_{FM}	400			mA
Average Rectified Output Current	I_O	200			mA
Peak forward surge current @=1.0ms @=1.0s	I_{FSM}	2.5 0.5			A
Repetitive Peak Forward Current	I_{FRM}	625			mA
Power Dissipation	Pd	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			K/W
Storage temperature	T_{STG}	-65~+150			℃

Electrical Ratings @T_A=25℃

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage		V_{F1}			1.0	V	I_F=0.1A
		V_{F2}			1.25		I_F=0.2A
Reverse current	BAV19W	I_R			0.1	μA	V_R=100V
	BAV20W				0.1		V_R=150V
	BAV21W				0.1		V_R=200V
Capacitance between terminals		C_T			5	pF	V_R=0V,f=1MHz
Reverse Recovery Time		t_{rr}			50	ns	I_F=I_R=30mA Irr=0.1XI_R,R_L=100Ω

Typical Characteristics

BAV19W/BAV20W/BAV21W

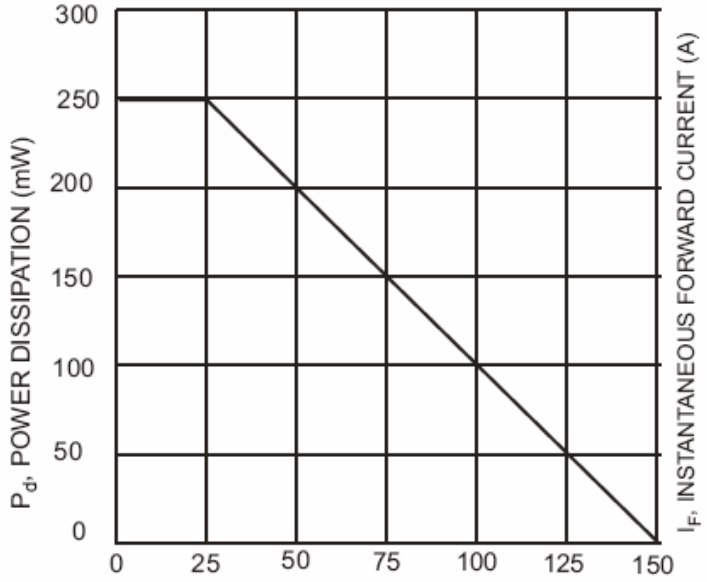


Fig. 1 Power Derating Curve

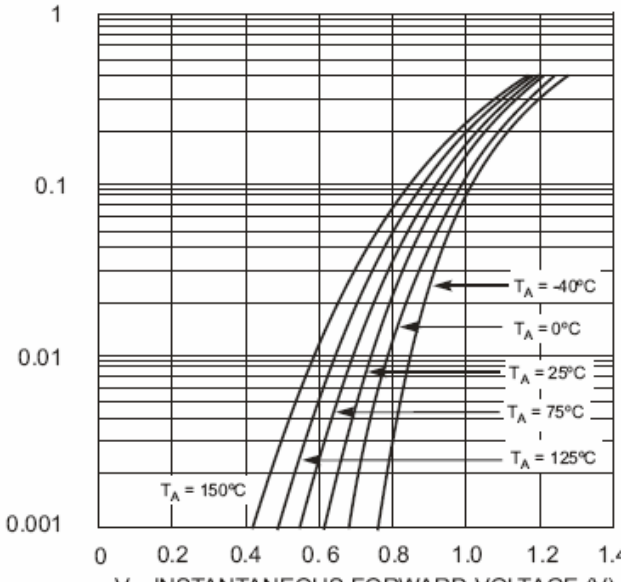


Fig. 2 Typical Forward Characteristics

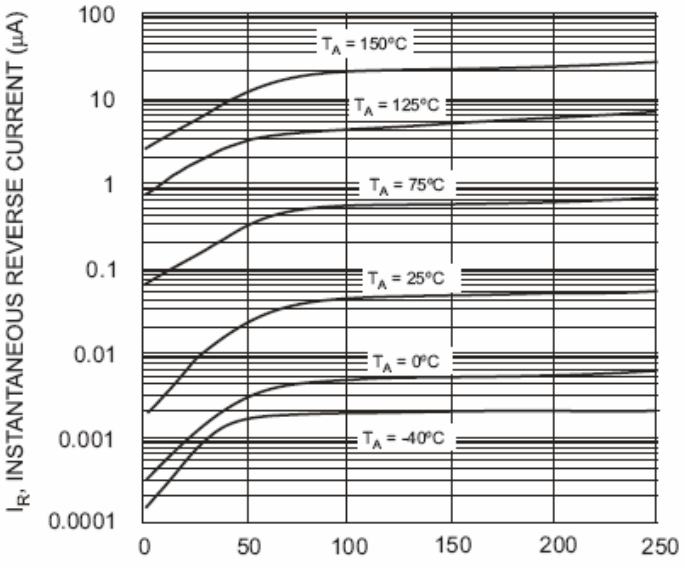


Fig. 3 Typical Reverse Characteristics

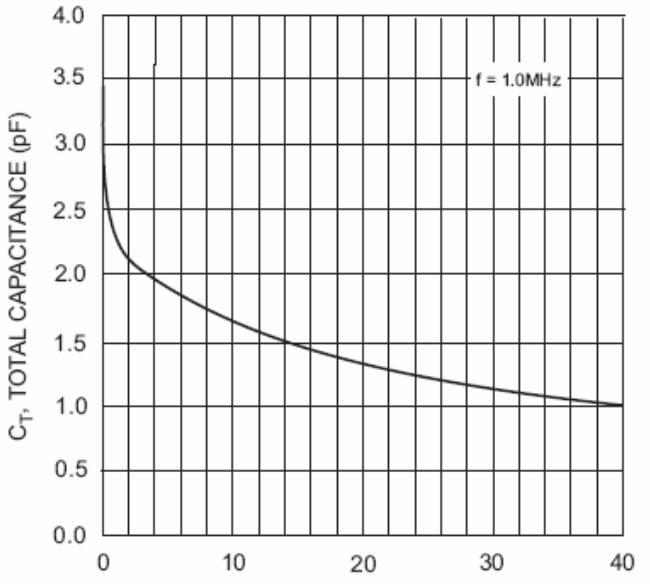


Fig. 4 Typical Capacitance vs. Reverse Voltage