

BAV19W-BAV21W

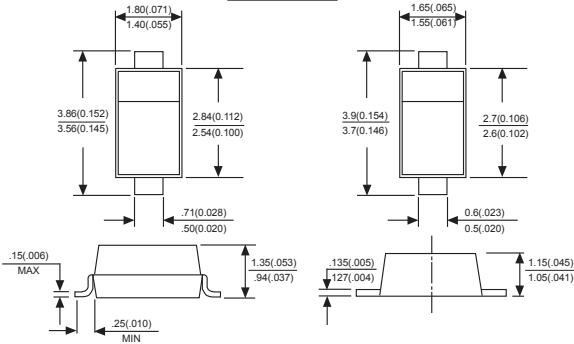
FAST SWITCHING DIODES

SOD-123

FEATURES

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

MECHANICAL DATA



Dimensions in millimeters and (inches)

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Marking: BAV19W:A8, BAV20W:T2, BAV21W:T3

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	BAV19W	BAV20W	BAV21W	UNITS
Peak repetitive peak reverse voltage	V_{RRM}				
Working peak reverse voltage	V_{RWM}	100	150	200	V
DC Blocking voltage	V_R				
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	I_{FSM}		2.5		A
@=1.0s			0.5		
Repetitive peak forward current	I_{FRM}		625		mA
Power dissipation	P_d		250		mW
Thermal resistance junction to ambient	$R_{\theta JA}$		500		K/W
Storage temperature	T_{STG}		-65 to +150		$^\circ\text{C}$
Non-Repetitive peak reverse voltage	V_{RM}	120	200	250	V

Electrical ratings @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{F1}			1.0	V	$I_F=0.1\text{A}$
	V_{F2}			1.25	V	$I_F=0.2\text{A}$
Reverse current	I_R			0.1	μA	$V_R=100\text{V}$
				0.1	μA	$V_R=150\text{V}$
				0.1	μA	$V_R=200\text{V}$
Capacitance between terminals	C_T			5	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse recovery time	t_{rr}			50	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

RATINGS AND CHARACTERISTIC CURVES BAV19W THRU BAV21W

FIG. 1- POWER DERATING CURVE

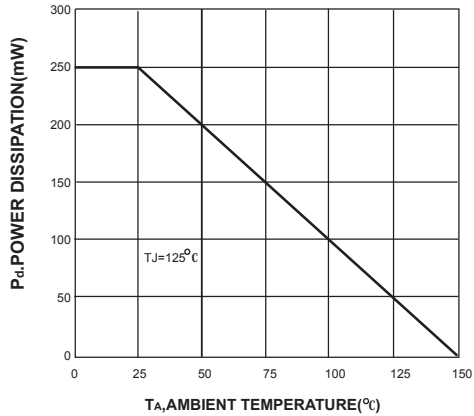


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

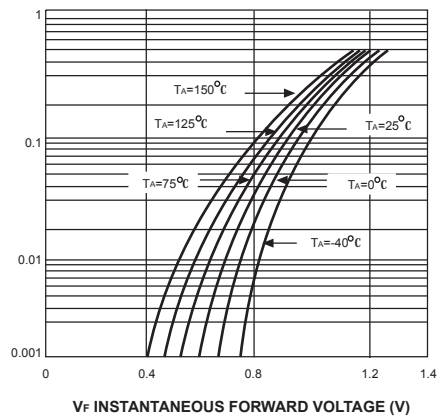


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

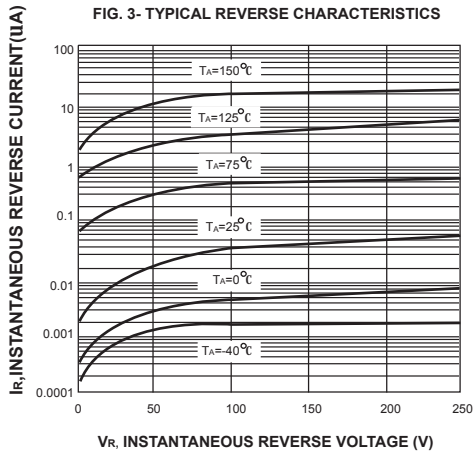


FIG. 4- TYPICAL CAPACITANCE VS REVERSE VOLTAGE

