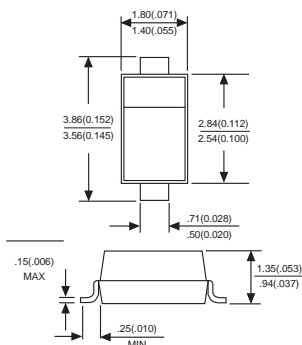


# BAV19W-BAV21W

## FAST SWITCHING DIODES

### SOD-123



Dimensions in millimeters and (inches)

### FEATURES

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

### MECHANICAL DATA

**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	$V_{RRM}$				V
Working peak reverse voltage	$V_{RWM}$	100	150	250	V
DC Blocking voltage	$V_R$				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	$I_{FSM}$		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	$\mu\text{A}$	$V_R=100\text{V}$
				0.1	$\mu\text{A}$	$V_R=150\text{V}$
				0.1	$\mu\text{A}$	$V_R=200\text{V}$
Capacitance between terminals	$C_T$			5	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse recovery time	$t_{rr}$			50	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1X I_R, R_L=100\Omega$

# RATINGS AND CHARACTERISTIC CURVES BAV19W THRU BAV21W

FIG. 1- POWER DERATING CURVE

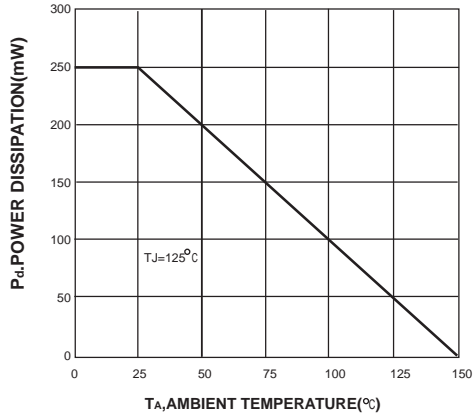


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

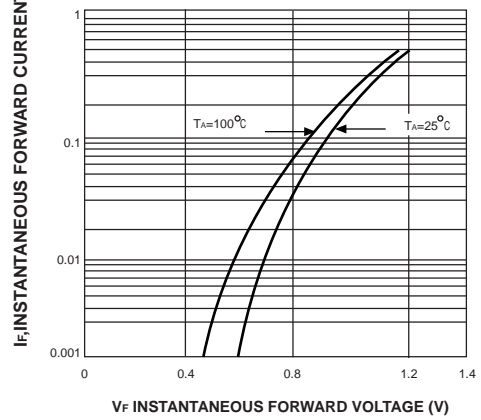


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

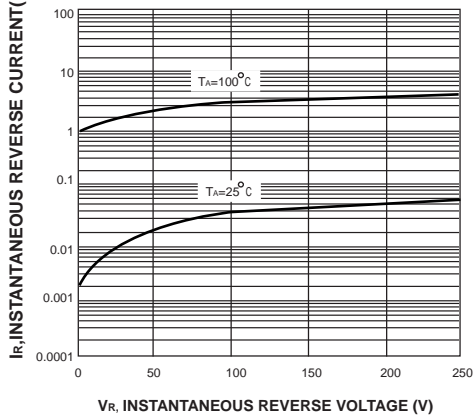


FIG. 4- TYPICAL CAPACITANCE VS REVERSE VOLTAGE

