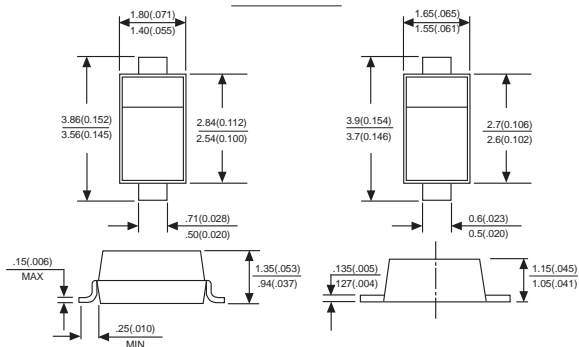


# BAV16W/1N4148W

## 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
- ◆ High conductance

### MECHANICAL DATA

**Case:** Molded plastic body

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

**Polarity:** Polarity symbols marked on case

**Marking:** T6, T4

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOLS	Limits	UNITS
Peak repetitive peak reverse voltage	$V_{RRM}$	75	V
Working peak	$V_{RWM}$		
DC Blocking voltage	$V_R$		
RMS Reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	$I_{FM}$	300	mA
Average rectified output current	$I_o$	150	mA
Peak forward current @=1.0us	$I_{FSM}$	2.0	A
@=1.0s		1.0	
Power dissipation	$P_d$	400	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	315	K/W
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-65 to +150	$^\circ\text{C}$
Non-Repetitive peak reverse voltage	$V_{RM}$	100	V

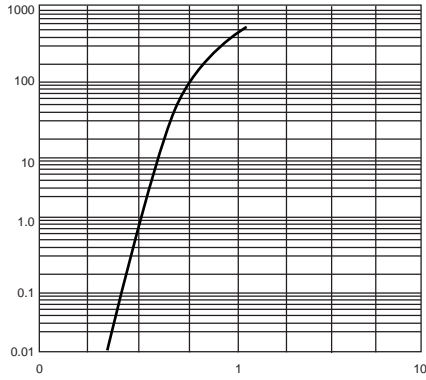
Electrical ratings @  $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Froward voltage	$V_{F1}$			0.715	V	$I_F=1.0\text{mA}$
	$V_{F2}$			0.855	V	$I_F=10\text{mA}$
	$V_{F3}$			1.0	V	$I_F=50\text{mA}$
	$V_{F4}$			1.25	V	$I_F=150\text{mA}$
Reverse current	$I_{R1}$			1	$\mu\text{A}$	$V_R=75\text{V}$
	$I_{R2}$			25	nA	$V_R=20\text{V}$
Capacitance between terminals	$C_T$			2	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse recovery time	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

# RATINGS AND CHARACTERISTIC CURVES BAV16W/1N4148W

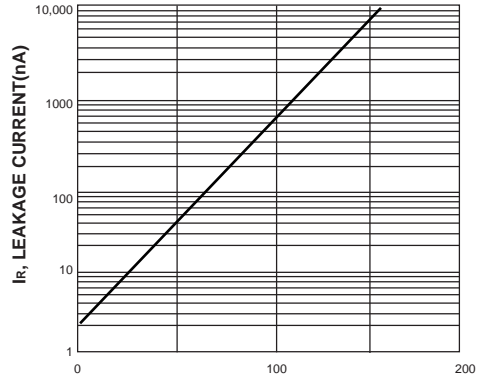
$I_F$  INSTANTANEOUS FORWARD CURRENT (mA)

FIG. 1- FORWARD CHARACTERISTICS



$V_F$  INSTANTANEOUS FORWARD VOLTAGE (V)

FIG. 2-LEAKAGE CURRENT VS JUNCTION TEMPERATURE



$V_R$  REVERSE VOLTAGE (V)

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