

BAV16WS/IN4148WS

FAST SWITCHING DIODES

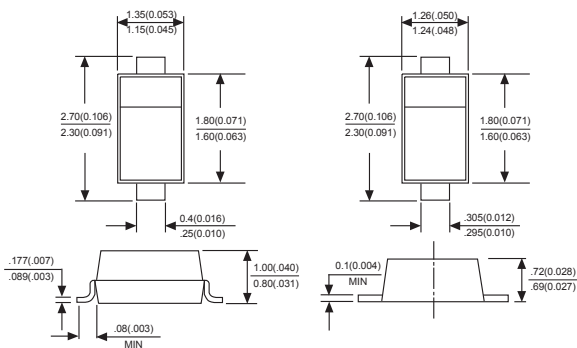
SOD-323

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: T4



Dimensions in millimeters and (inches)

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 reverse voltage	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 @=1.0*s	I_{FSM}	2.0	A
@=1.0s		1.0	
Power dissipation	P_d	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	625	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

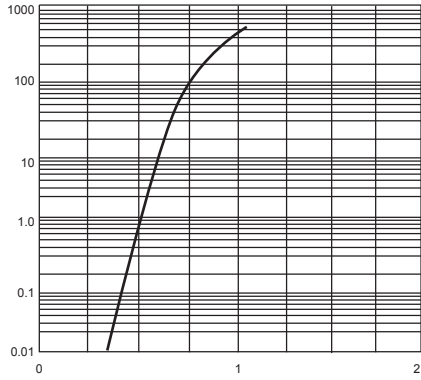
Electrical ratings @ $T_A=25^\circ\text{C}$

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	uA	$V_R=75\text{V}$
	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 BAV16WS/1N4148WS

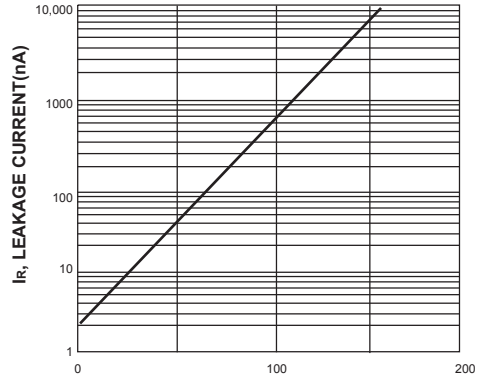
I_F , INSTANTANEOUS FORWARD CURRENT (mA)

FIG. 1- FORWARD CHARACTERISTICS



V_F INSTANTANEOUS FORWARD VOLTAGE (V)

FIG. 2-LEAKAGE CURRENT VS JUNCTION TEMPERATURE



T_J JUNCTION TEMPERATURE (°C)