

**SOD-123 Plastic-Encapsulate Diodes****BAV16W/1N4148W** FAST SWITCHING DIODES

SOD-123

**FEATURES**

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

**MARKING: T6,T4****Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	100	V
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>	75	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Output Current	I <sub>O</sub>	150	mA
Peak forward surge current @=1.0μs @=1.0s	I <sub>FSM</sub>	2.0 1.0	A
Power Dissipation	P <sub>d</sub>	400	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	315	K/W
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>STG</sub>	-65~+150	°C

**Electrical Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V <sub>F1</sub>			0.715	V	I <sub>F</sub> =1mA
	V <sub>F2</sub>			0.855	V	I <sub>F</sub> =10mA
	V <sub>F3</sub>			1.0	V	I <sub>F</sub> =50mA
	V <sub>F4</sub>			1.25	V	I <sub>F</sub> =150mA
Reverse current	I <sub>R1</sub>			1	μA	V <sub>R</sub> =75V
	I <sub>R2</sub>			25	nA	V <sub>R</sub> =20V
Capacitance between terminals	C <sub>T</sub>			2	pF	V <sub>R</sub> =0V,f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			4	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1X I <sub>R</sub> ,R <sub>L</sub> =100Ω

# Typical Characteristics

# BAV16W/1N4148W

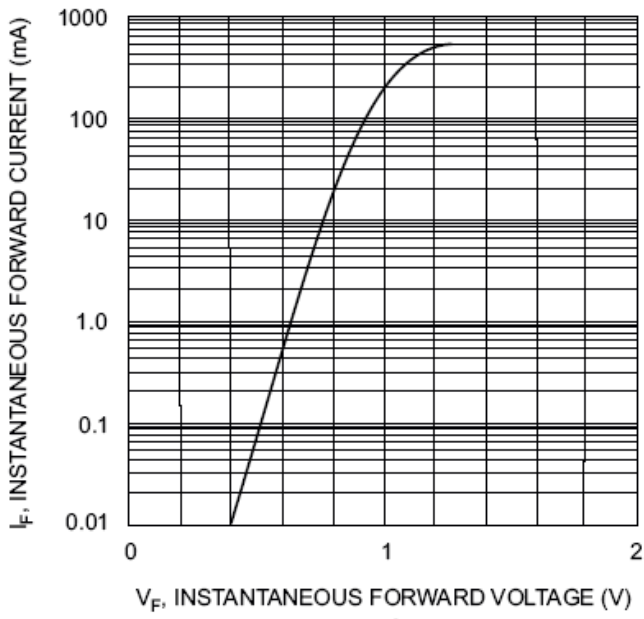


Fig. 1 Forward Characteristics

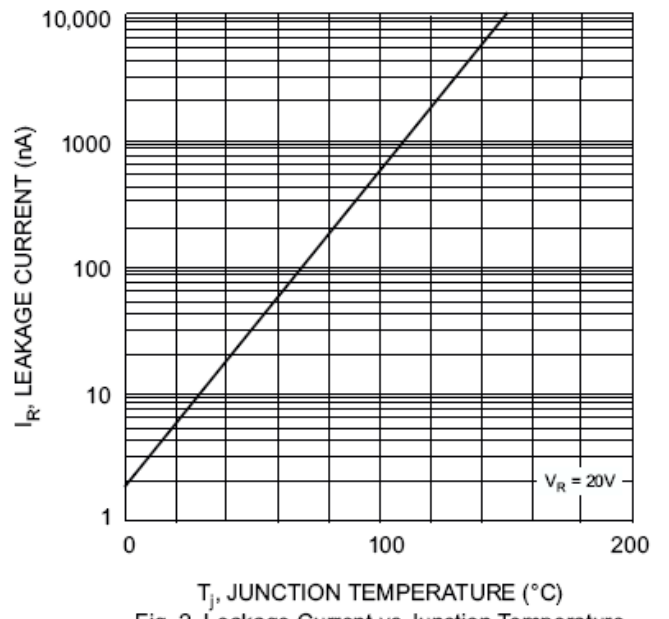


Fig. 2 Leakage Current vs Junction Temperature