



# BAV16W / 1N4148W

## Surface Mount Fast Switching Diode



Voltage Range  
75 Volts  
400m Watts Power Dissipation

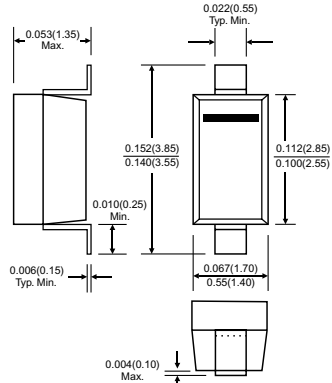
### Features

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

### Mechanical Data

- ✧ Case: SOD-123, Molded plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode Band
- ✧ Marking: Date Code and Type Code or Date Code only  
Type Code: T6, T4
- ✧ Weight: 0.01 gram (approx.)

### SOD-123



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

Type Number	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	VRM	100	V
Peak Repetitive Reverse Voltage	VRRM	75	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR		
RMS Reverse Voltage	VR(RMS)	53	V
Forward Continuous Current (Note 1)	IFM	300	mA
Average Rectifier Output Current (Note 1)	Io	150	mA
Non-Repetitive Peak Forward Surge Current @ t=1.0uS @ t=1.0S	IFSM	2.0 1.0	A
Power Dissipation (Note 1)	Pd	400	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R θ JA	315	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150	°C

#### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage IF=1.0mA IF= 10mA IF = 50mA IF=150mA	VF	-	0.715 0.855 1.0 1.25	V
Peak Reverse Current VR=75V VR=75V, Tj=150°C VR=25V, Tj=150°C VR=20V	IR	-	1.0 50 30 25	uA nA
Junction Capacitance VR=0, f=1.0MHz	Cj	-	2.0	pF
Reverse Recovery Time (Note 2)	trr	-	4.0	nS

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Reverse Recovery Test Conditions: IF=IR=10mA, Irr=0.1 x IR, RL=100Ω.

## RATINGS AND CHARACTERISTIC CURVES (BAV16W / 1N4148W)

FIG.1- FORWARD CHARACTERISTICS

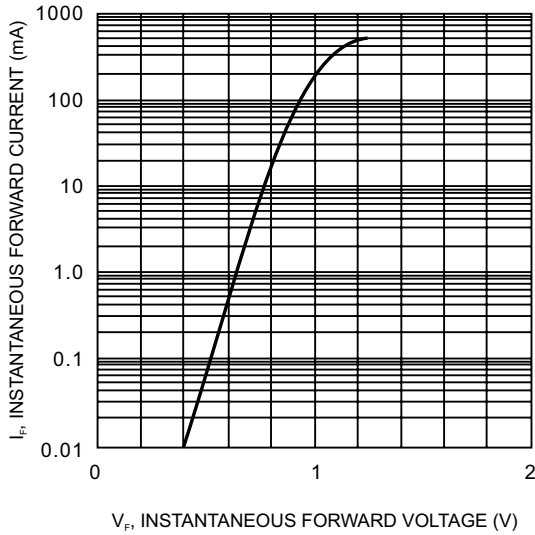


FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

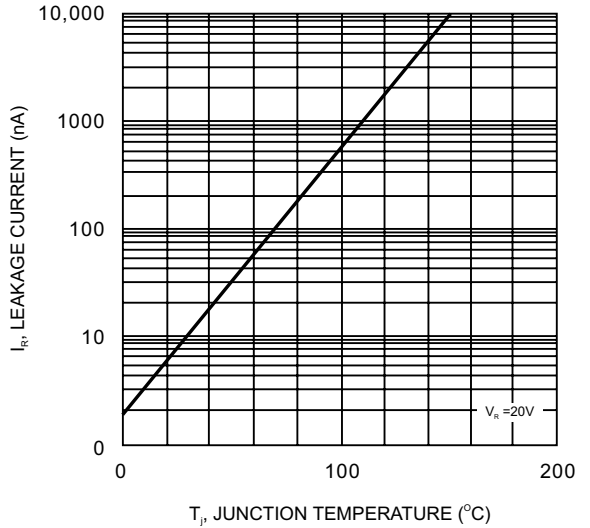


FIG.3- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

