



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**BAV16W  
THRU  
BAV21W**

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODE**

**VOLTAGE RANGE - 75 to 200 Volts**

**CURRENT - 0.2 to 0.25 Ampere**

**FEATURES**

- \* Surface Mount Package Ideally Suited for Automatic Insertion
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage
- \* High current capability

**MECHANICAL DATA**

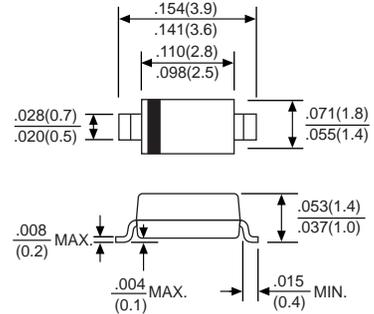
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 grams Approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**SOD-123**



Dimensions in inches and (millimeters)

	SYMBOL	BAV16W	BAV19W	BAV20W	BAV21W	UNITS
Maximum Reverse Voltage	VR	75	100	150	200	V
Maximum Recurrent Peak Reverse Voltage	VRRM	100	120	200	250	V
Maximum Average Rectified Current	Io	250		200		mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	2.0		2.5		A
Maximum Power Dissipation Tamb=25°C	Ptot	350		410		mW
Maximum Forward Voltage (@IF=100mA)	VF	0.855(@IF=10mA)		1.0		V
Maximum Reverse Current (@VR=VR Max)	IR	1.0		0.1		µA
Maximum Reverse Recovery Time(Note 1)	trr	6.0		50		nS
Typical Junction Capacitance(Note 2)	CJ	2.0		1.5		pF
Typical Thermal Resistance	RθJA	450		375		°C/W
Operating and Storage Temperature Range	TJ,TSTG	-55 to +125				°C

Note: 1. Test Conditions: IF=IR=10mA, RL=100Ω, VR=6V to IR=1mA, RL=100Ω  
2. Measured at 1MHz and VR=0

# RATING AND CHARACTERISTIC CURVES (BAV16W THRU BAV21W)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

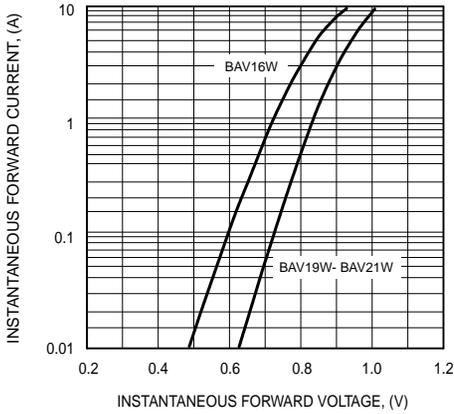


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

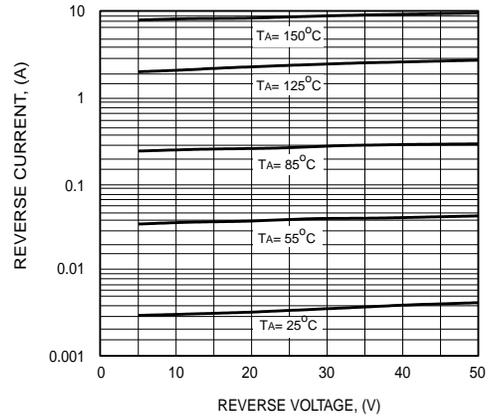


FIG.3 - TYPICAL JUNCTION CAPACITANCE

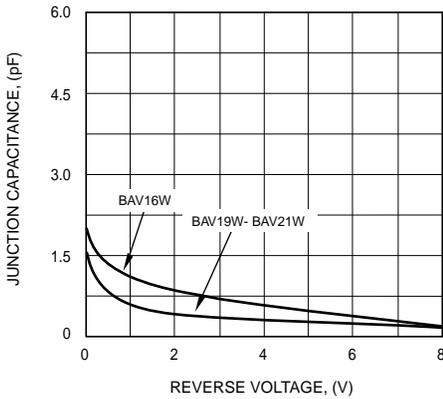
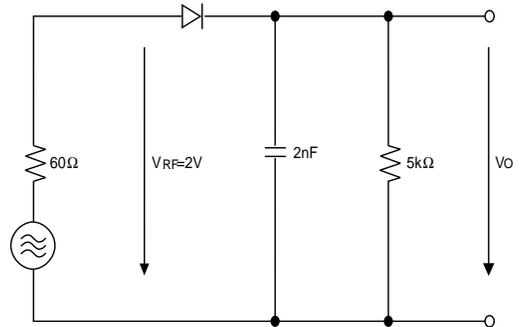


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



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