



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

BAL99  
BAW56  
BAV70  
BAV99

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODES

VOLTAGE - 100 Volts

CURRENT - 0.15 Ampere

FEATURES

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

MECHANICAL DATA

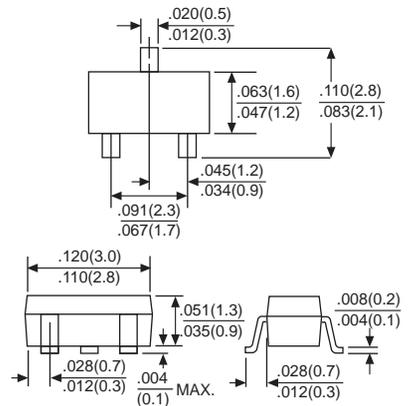
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 grams Approx.

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%.



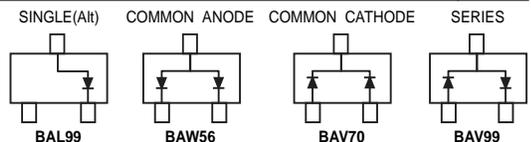
SOT-23



Dimensions in inches and (millimeters)

	SYMBOL	BAL99	BAW56	BAV70	BAV99	UNITS
Maximum Reverse Voltage	VR			75		V
Maximum Recurrent Peak Reverse Voltage	VRRM			100		V
Maximum Average Rectified Current	Io		150			mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM		2.0			A
Maximum Power Dissipation Tamb=25°C	Ptot		250			mW
Maximum Forward Voltage (@IF=50mA)	VF		1.0			V
Maximum Reverse Current (@VR=75V)	IR		2.5			µA
Maximum Reverse Recovery Time(Note 1)	trr		4.0			nS
Typical Junction Capacitance(Note 2)	CJ		1.5			pF
Typical Thermal Resistance	RθJA		360			°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



Pin Configuration (Top View)

# RATING AND CHARACTERISTIC CURVES (BAL99, BAW56, BAV70, BAV99)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

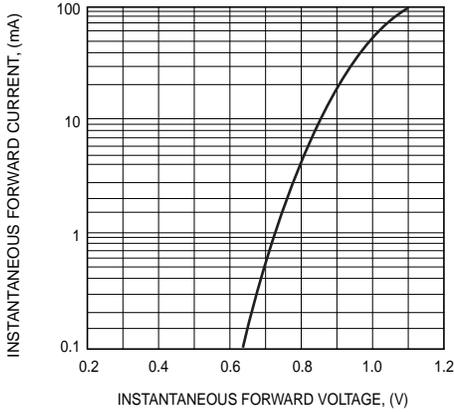


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

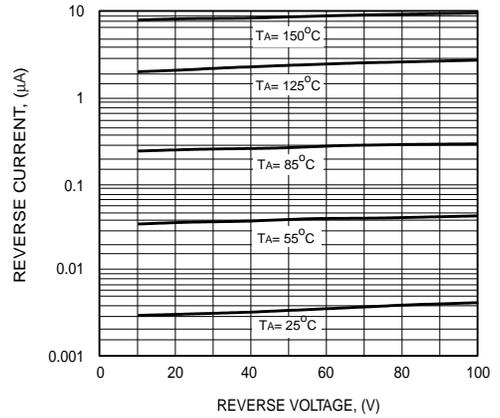


FIG.3 - TYPICAL JUNCTION CAPACITANCE

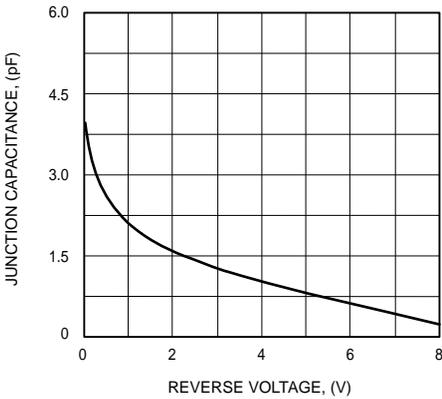
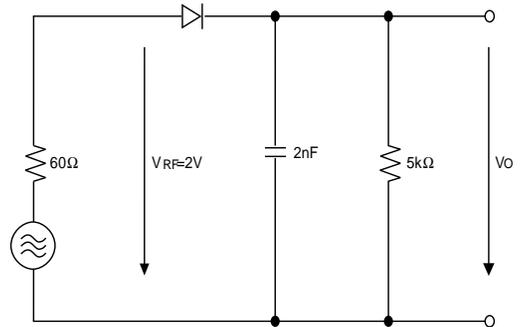


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



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