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

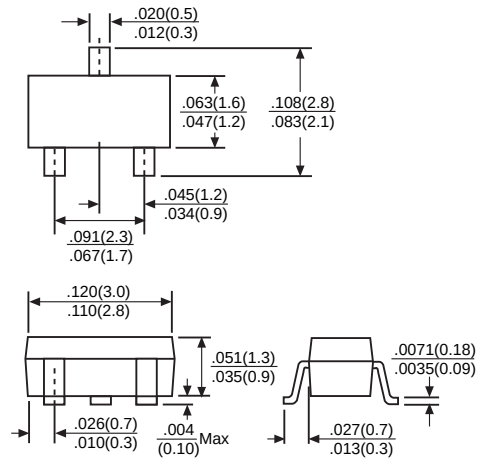
MECHANICAL DATA

* 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%.

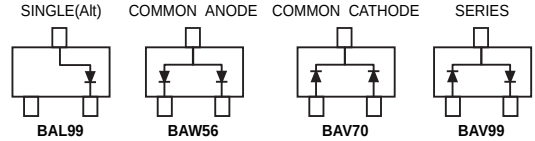
SOT-23



Dimensions in inches and (millimeters)

	SYMBOL	BAL99	BAW56	BAV70	BAV99	UNITS
Maximum Reverse Voltage	V_R	75				V
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	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)	I_{FSM}	2.0				A
Maximum Power Dissipation Tamb=25°C	Ptot	250				mW
Maximum Forward Voltage (@I_F=50mA)	V_F	1.0				V
Maximum Reverse Current (@V_R=$V_{R\ Max}$)	I_R	2.5				μA
Maximum Reverse Recovery Time(Note 1)	trr	4.0				nS
Typical Junction Capacitance(Note 2)	C_J	1.5				pF
Typical Thermal Resistance	$R_{\theta JA}$	360				°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +125				°C

Note: 1. Test Conditions: I_F=I_R=10mA, R_L=100Ω, V_R=6V to I_R=1mA, R_L=100Ω
2. Measured at 1MHz and V_R=0



Pin Configuration (Top View)

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

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

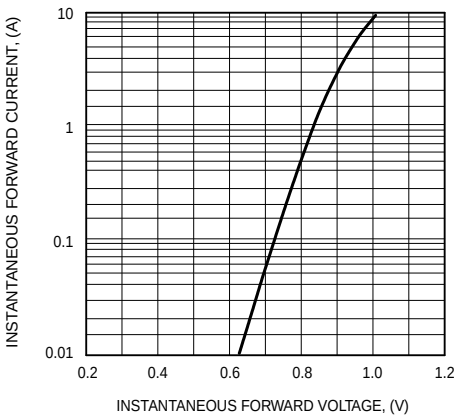


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

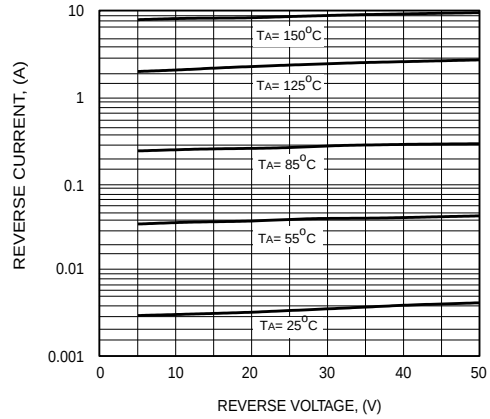


FIG.3 - TYPICAL JUNCTION CAPACITANCE

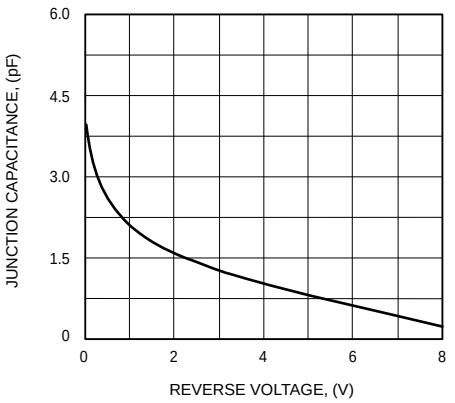


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT