



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BAL99W
BAW56W
BAV70W
BAV99W

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

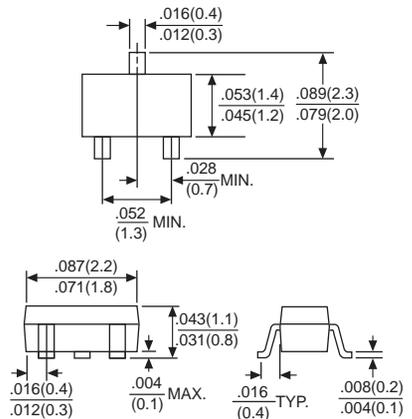
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 0.008 grams Approx.

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%.



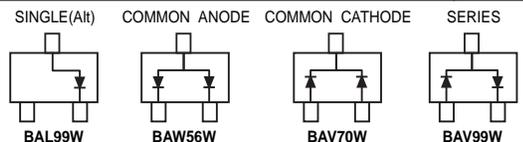
SOT-323



Dimensions in inches and (millimeters)

	SYMBOL	BAL99W	BAW56W	BAV70W	BAV99W	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			200		mW
Maximum Forward Voltage (@IF=10mA)	VF			1.0		V
Maximum Reverse Current (@VR=VR Max)	IR			2.5		µA
Maximum Reverse Recovery Time(Note 1)	trr			6.0		nS
Typical Junction Capacitance(Note 2)	CJ			4.0		pF
Typical Thermal Resistance	RθJA			357		°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 (BAL99W, BAW56W, BAV70W, BAV99W)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

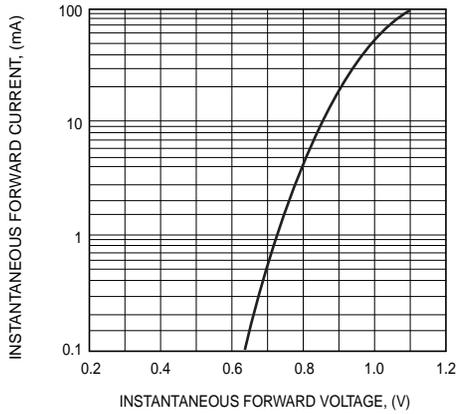


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

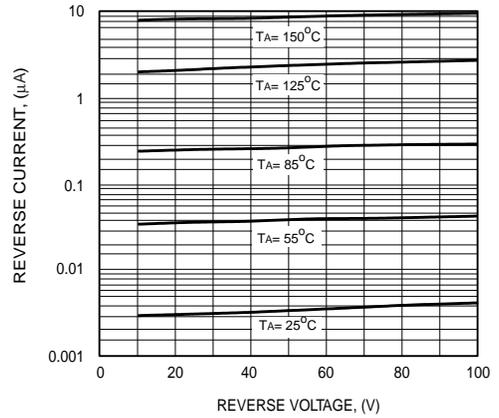


FIG.3 - TYPICAL JUNCTION CAPACITANCE

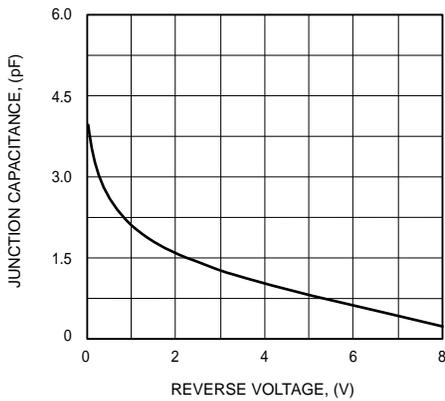
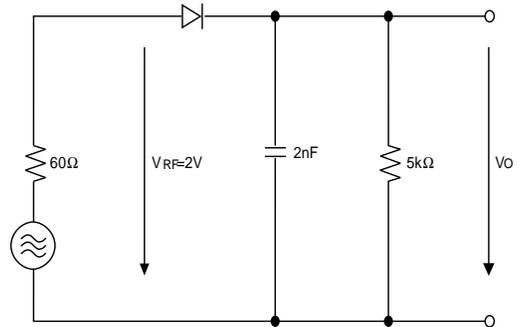


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



Disclaimer

Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold *DC COMPONENTS* harmless against all damages.

DC COMPONENTS disclaims any and all liability arising out of the application or use of any product, including consequential or incidental damages. Statement regarding the suitability of products for certain types of applications are based on *DC COMPONENTS*'s knowledge of typical requirements that are often placed on *DC COMPONENTS* products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

DC COMPONENTS reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein, and disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify *DC COMPONENTS*'s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Unless otherwise in writing, *DC COMPONENTS* products are intended for use as general electronic components in standard applications (eg: Consumer electronic, Computer equipment, Office equipment, etc.), and not recommended for use in a high specific application where a failure or malfunction of the device could result in human injury or death (eg: Aerospace equipment, Submarine cables, Combustion equipment, Safety devices, Life support systems, etc.)

Customers using or selling *DC COMPONENTS* products not expressly indicated for use in such applications do so at their own risk. If customer intended to use *DC COMPONENTS* standard quality grade devices for applications not envisioned by *DC COMPONENTS*, please contact our sales representatives in advance.



DC COMPONENTS CO., LTD.