



# BAW56,BAV70,BAV99,BAL99

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 100Volts **POWER** 250mWatts

**SOT-23** Unit: inch ( mm )

### FEATURES

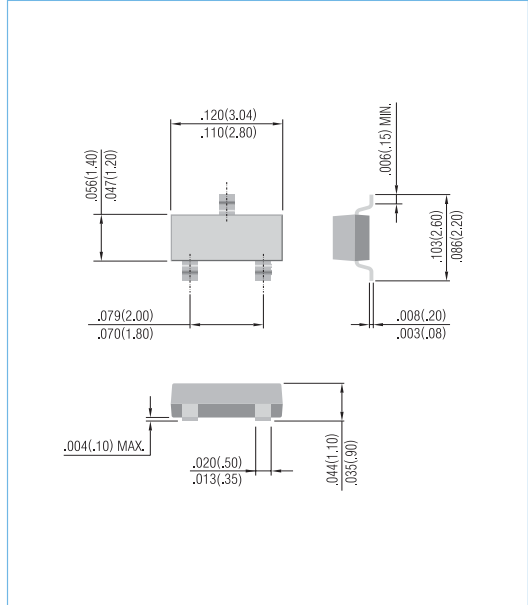
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0084 gram



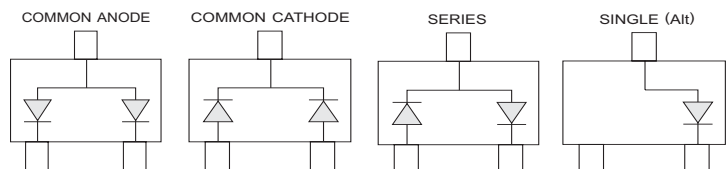
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAW56	BAV70	BAV99	BAL99	UNITS
Marking Code		JC	JA	JB	JF	
Reverse Voltage	$V_R$	75				V
Peak Reverse Voltage	$V_{RM}$	100				V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	$I_O$	150				mA
Peak Forward Surge Current, 0.001ms	$I_{FSM}$	4.0				A
Power Dissipation Derate Above 25°C	$P_{TOT}$	250				mW
Maximum Forward Voltage	$V_F$	0.715 @ $I_F=0.001A$ 0.855 @ $I_F=0.01A$ 1.0 @ $I_F=0.05A$ 1.25 @ $I_F=0.15A$				V
Maximum DC Reverse Current at 25V 75V	$I_R$	0.03 2.5				$\mu A$
Maximum Junction Capacitance (Notes 1)	$C_J$	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	$T_{RR}$	4.0				ns
Typical Thermal Resistance	$R_{\theta JA}$	360				°C / W
Junction Temperature Range	$T_J$	-55 to +150				°C
Circuit Figure		Common Anode	Common Cathode	Series	Single (Alt)	

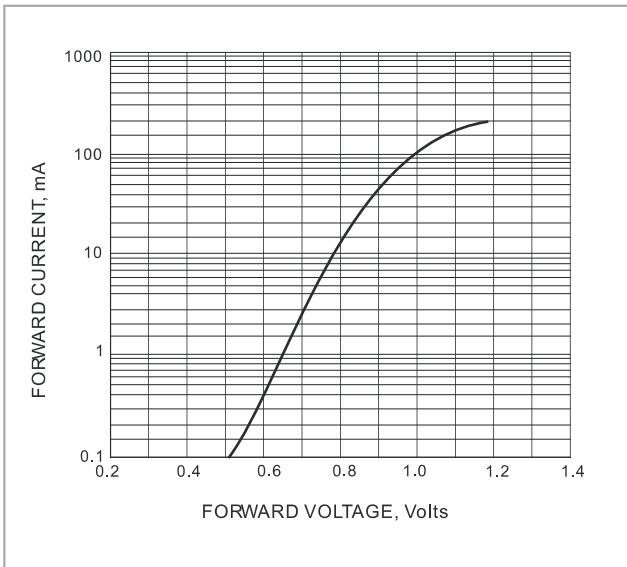
**NOTE:**

1.  $C_J$  at  $V_R=0$ ,  $f=1MHZ$
2. From  $I_F=10mA$  to  $I_R=1mA$ ,  $V_R=6Volts$ ,  $R_L=100\Omega$

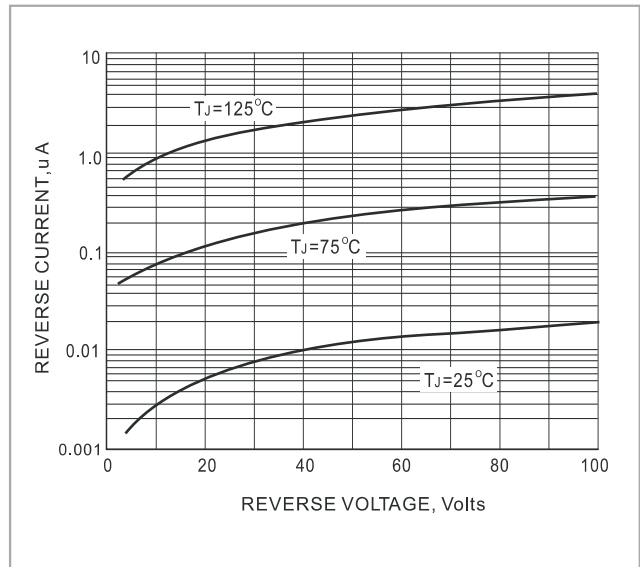




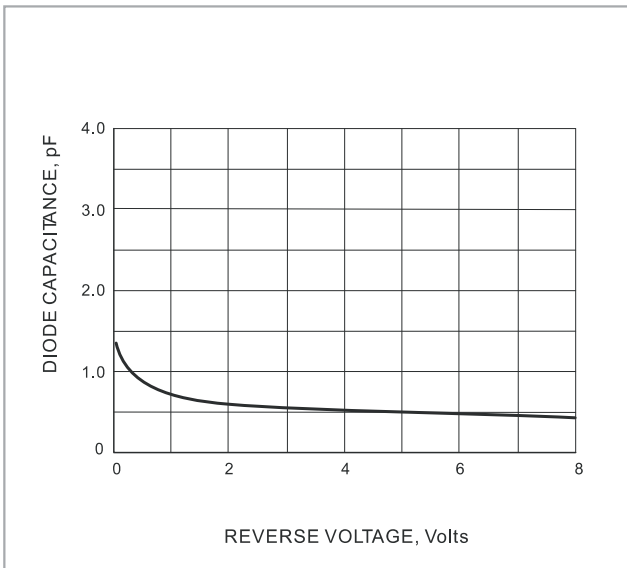
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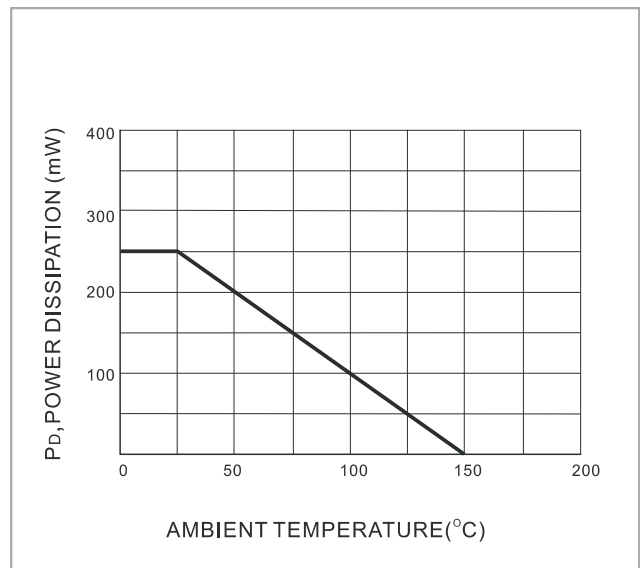
**FIG. 1-TYPICAL FORWARD CHARACTERISTIC**



**FIG. 2-TYPICAL REVERSE CHARACTERISTICS**



**FIG. 3 TYPICAL JUNCTION CAPACITANCE**

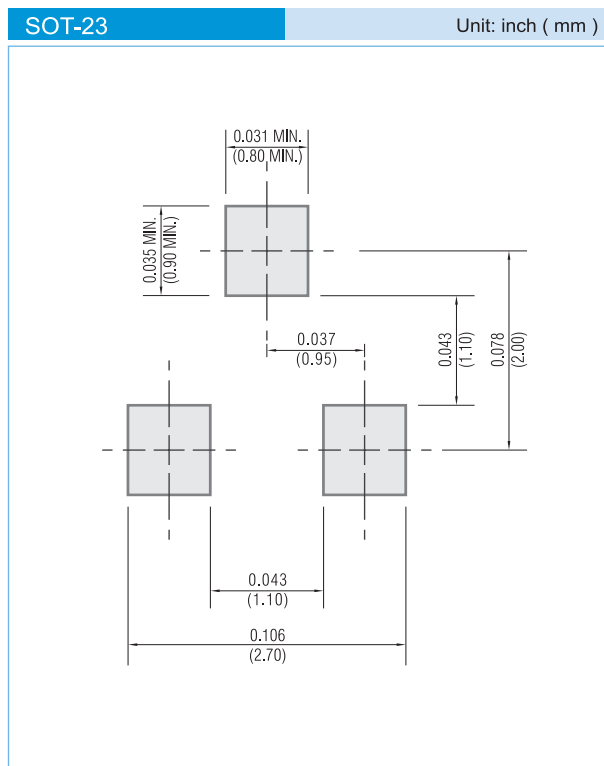


**FIG. 4 POWER DERATING CURVE**



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

### LEGAL STATEMENT

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