



**THE DATASHEET OF
BAL99_R1_00001**



BAW56 / BAV70 / BAV99 / BAL99

Surface Mount Switching Diodes

VOLTAGE 100 Volt **POWER** 250 mWatt

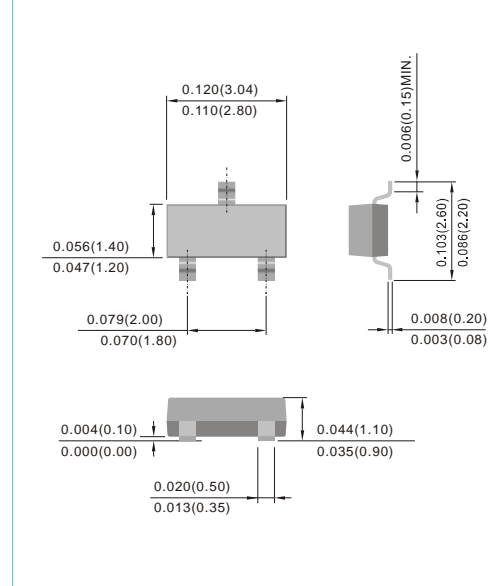
SOT-23 Unit : inch(mm)

FEATURES

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion
- Electrically identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOT-23, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Apporx. Weight : 0.0084 grams



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 @ $I_F=1mA$ 0.855 @ $I_F=10mA$ 1.0 @ $I_F=50mA$ 1.25 @ $I_F=150mA$				V
Maximum DC Reverse Current at 25V 75V	I_R	0.03 2.5				μA
Maximum Junction Capacitance (Notes 1)	C_J	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	t_{rr}	4.0				ns
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JC}$	360 205				$^{\circ}C / W$
Junction Temperature Range	T_J	-55 to +150				$^{\circ}C$
Circuit Figure	-	Common Anode	Common Cathode	Series	Single(Alt)	-

NOTES :

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

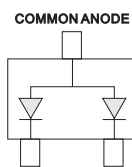


Fig.15

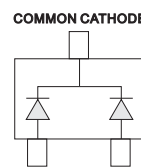


Fig.16

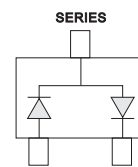


Fig.17

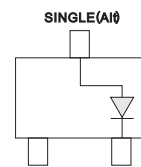


Fig.18

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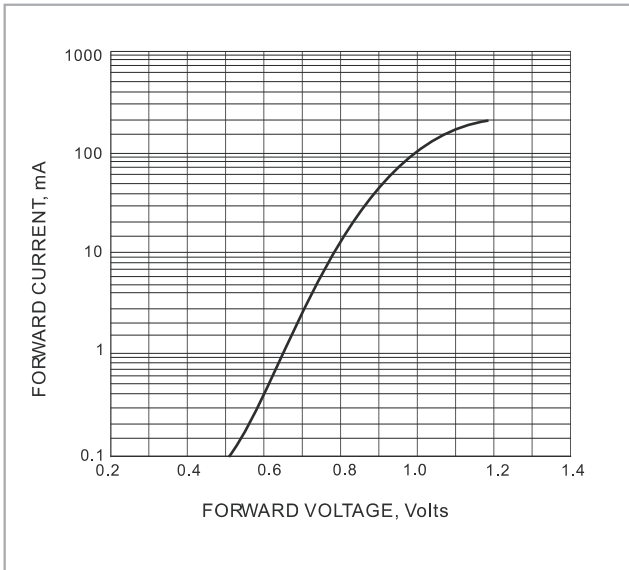


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

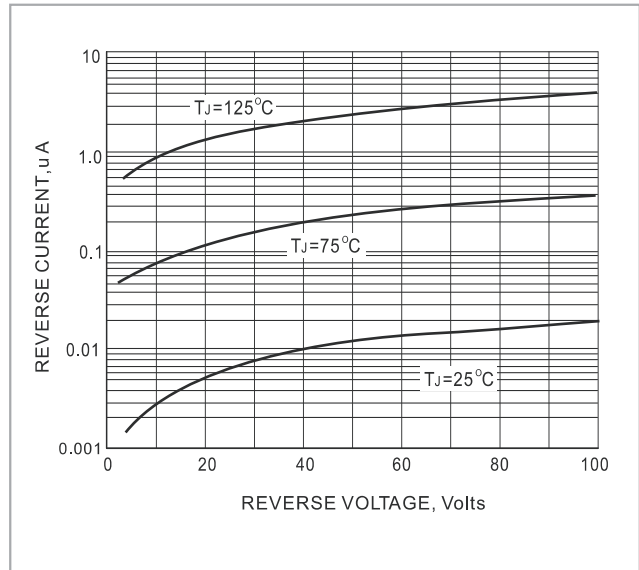


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

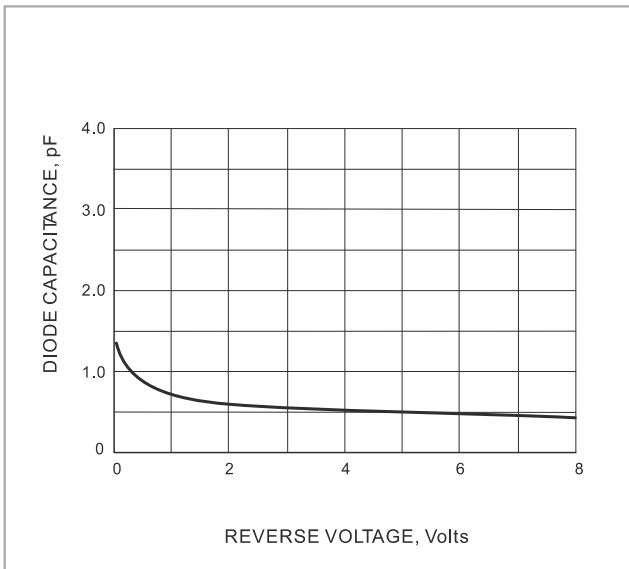


FIG. 3 TYPICAL JUNCTION CAPACITANCE

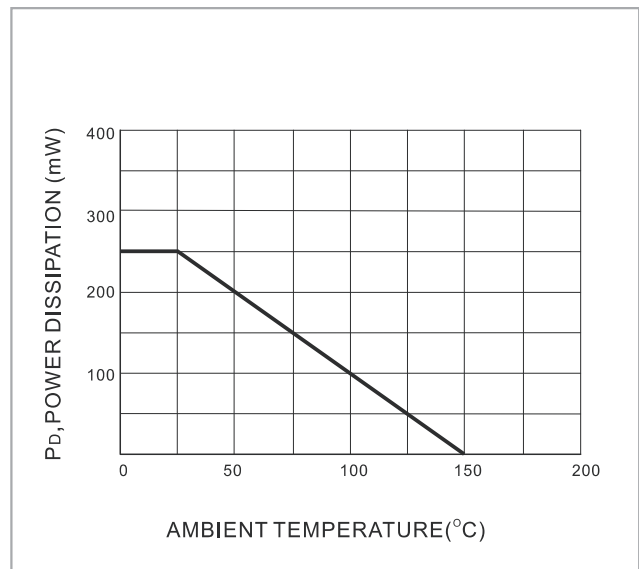


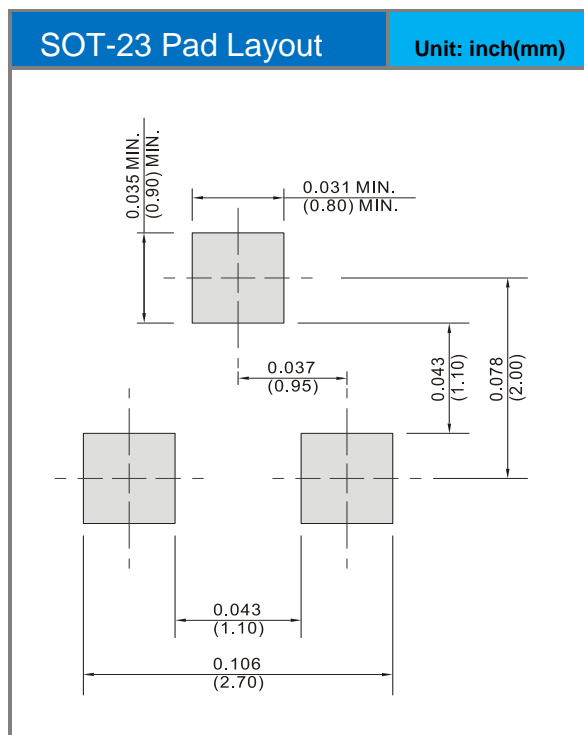
FIG. 4 POWER DERATING CURVE

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAW56	SOT-23	3K pcs / 7" reel	JC
BAV70	SOT-23	3K pcs / 7" reel	JA
BAV99	SOT-23	3K pcs / 7" reel	JB
BAL99	SOT-23	3K pcs / 7" reel	JF

Mounting Pad Layout





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