

DATA SHEET

BAW56,BAV70,BAV99,BAL99

SURFACE MOUNT SWITCHING DIODES

VOLTAGE

100 Volts

POWER

250mWatts

SOT-23

Unit: inch (mm)

FEATURES

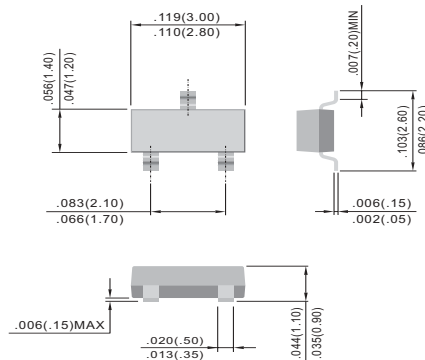
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

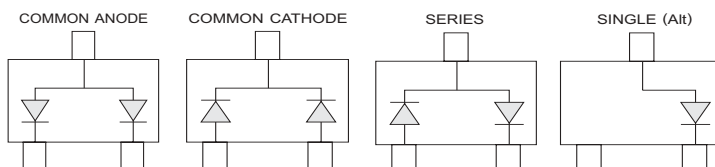
Approx. Weight: 0.008 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	BAW 56	BAV 70	BAV 99	BAL 99	UNITS
Marking Code		JC	JA	JG	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_D	150				mA
Peak Forward Surge Current, 1.0us	I_{FSM}	2.0				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				μA
Maximum Junction Capacitance (Notes 1)	C_J	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	T_{RR}	4.0				ns
Maximum Thermal Resistance	$R_{\theta JA}$	625				°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 $V_R=0$, $f=1$ MHZ
2. From $I_F=10$ mA to $I_R=1$ mA, $V_R=6$ Volts, $R_L=100\Omega$

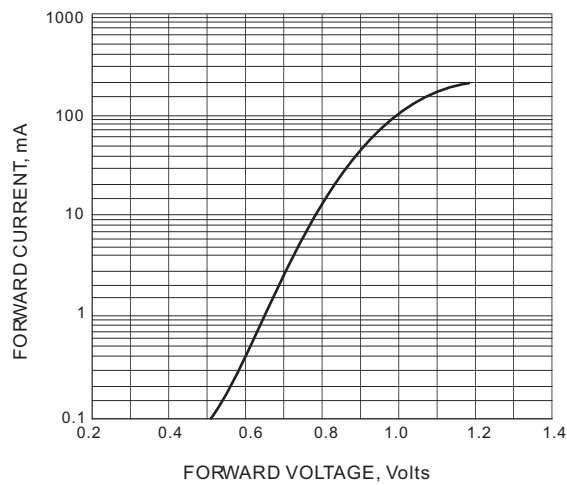


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

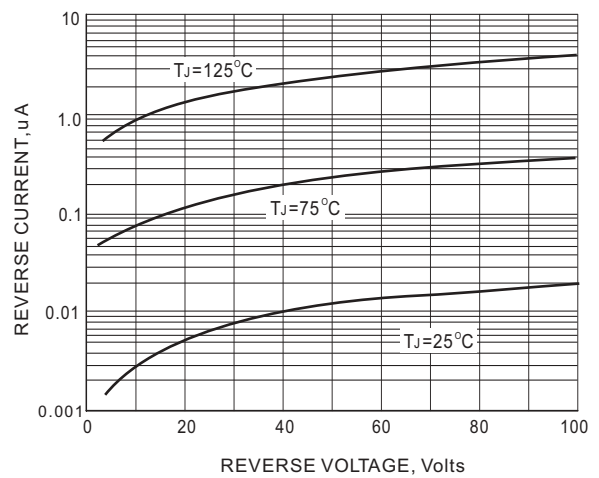


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

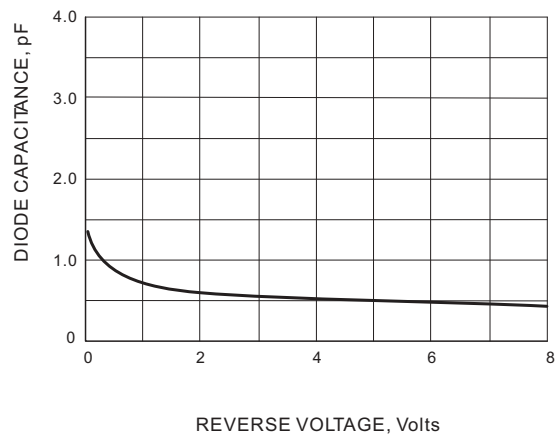


FIG. 3 TYPICAL JUNCTION CAPACITANCE

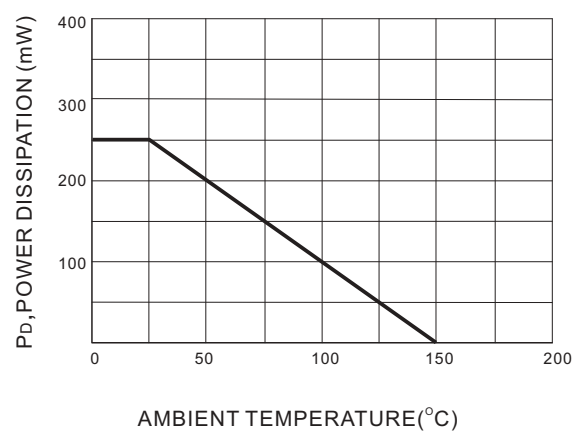


FIG. 4 POWER DERATING CURVE