



BAW56 / BAV70 / BAV99

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volt **POWER** 250mWatt

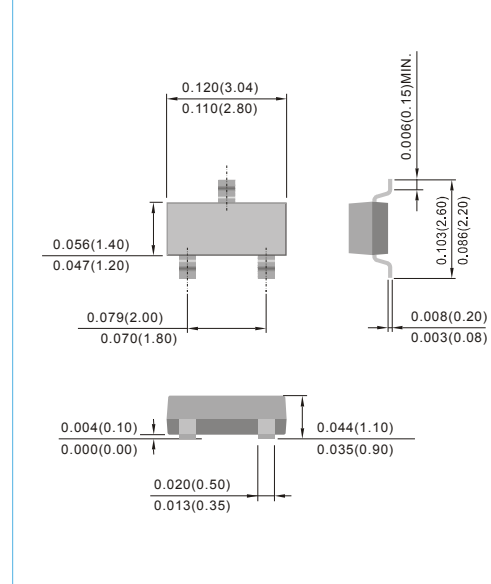
SOT-23 Unit : inch(mm)

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: 0.0003 ounces, 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	UNITS
Marking Code	-	JC	JA	JB	-
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			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 @ $I_F=50mA$ 1.25 @ $I_F=150mA$			V
Maximum DC Reverse Current at 25V 75V	I_R	0.03 2.5			μA
Junction Capacitance (Notes 1)	C_J	1.5			pF
Maximum Reverse Recovery Time (Notes 2)	t_{rr}	4			ns
Typical Thermal Resistance (Notes 3) (Notes 4)	$R_{\theta JA}$ $R_{\theta JC}$	450 257			°C / W
Junction Temperature Range	T_J	-55 to +150			°C
Circuit Figure	-	Common Anode	Common Cathode	Series	-

Notes :

1. C_J at $V_R=0$, $f=1MHz$
2. From $I_F=10mA$ to $I_R=1mA$, $V_R=6Volts$, $R_L=100\Omega$
3. Mounted on a FR4 PCB, single-sided copper, standard footprint
4. Mounted on a FR-4 PCB, single-sided copper, with 100cm² copper pad area.

COMMON ANODE

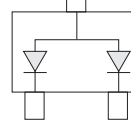


Fig.15

COMMON CATHODE

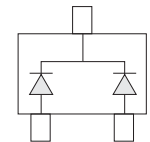


Fig.16

SERIES

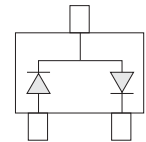


Fig.17



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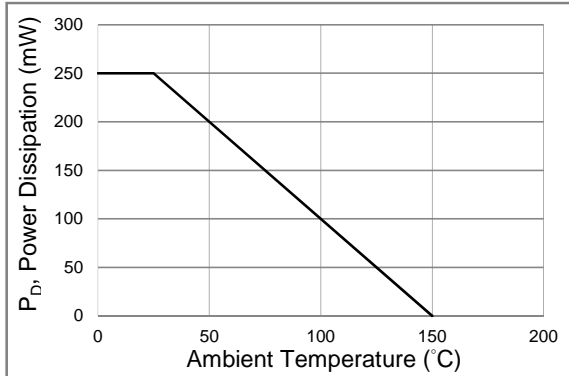


Fig.1 Power Derating Curve

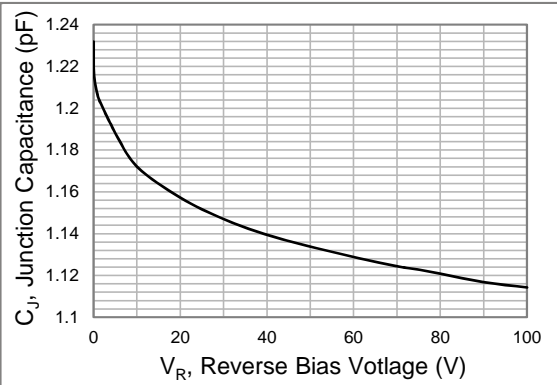


Fig.2 Typical Junction Capacitance

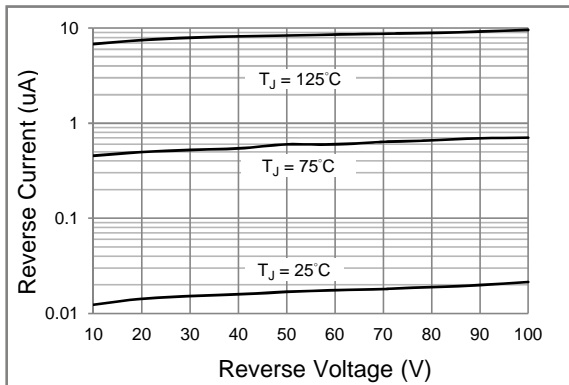


Fig.3 Typical Reverse Characteristics

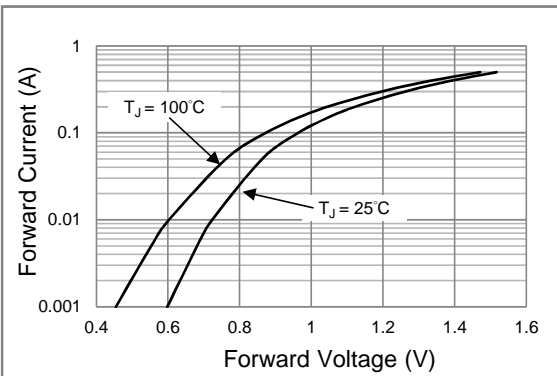


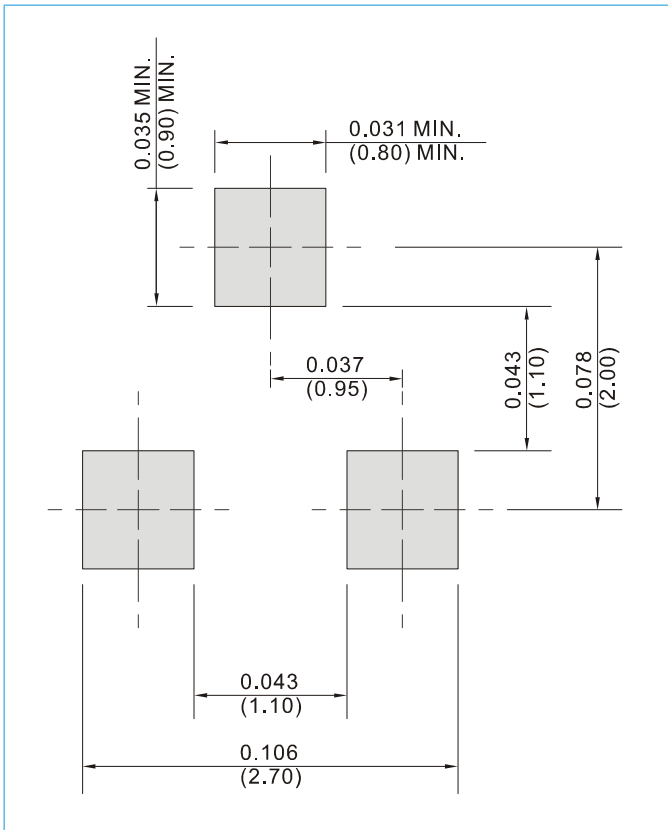
Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT

SOT-23 Unit : inch(mm)



ORDER INFORMATION

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



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Part No._packing code_Version

BAW56_R1_00101
BAW56_R2_00101
BAV70_R1_00101
BAV70_R2_00101
BAV99_R1_00101
BAV99_R2_00101

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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