

# BAW56/BAV70/BAV99

## BAW56/BAV70/BAV99 Plastic-Encapsulate Switching Diode

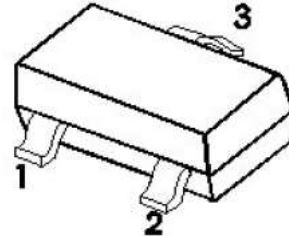
### General description

SOT-23 Plastic-Encapsulate Switching Diode

SOT-23

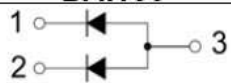
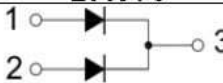
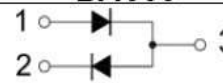
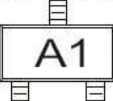
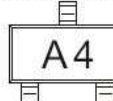

### Features

- Fast Switching Device (TRR <6nS)
- Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage



### Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

BAW56	BAV70	BAV99
		
MARKING:A1	MARKING:A4	MARKING:A7
		

### Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Reverse Voltage	VR	70	V
Power Dissipation	Pd	225	mW
Operating junction temperature	Tj	150	°C
Storage temperature range	Ts	-65-+150	°C
Average Rectified Current	IO	200	mA
Non-repetitive Peak Forward Current	IFM	400	mA
Peak Forward Surge Current @tp=1ms; TA=25°C	IFSM	2.0	A
Typical thermal resistance	RθJA	500	°C/W

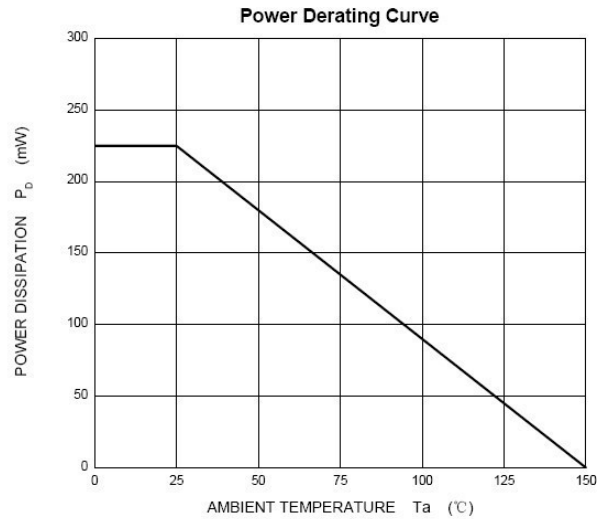
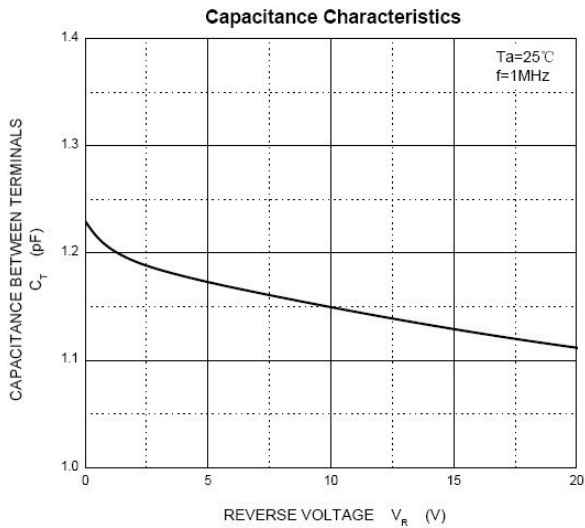
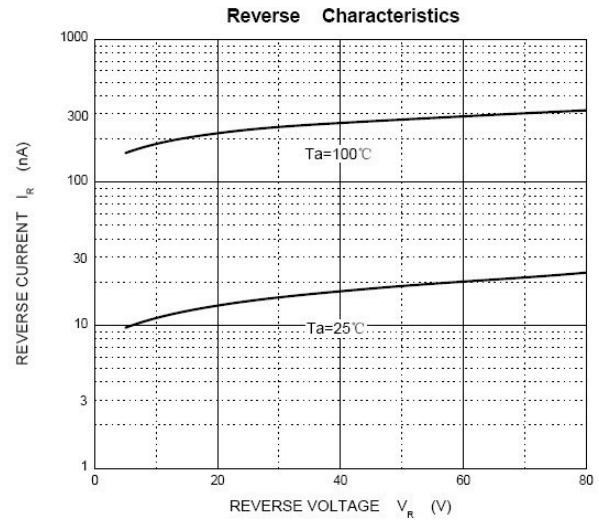
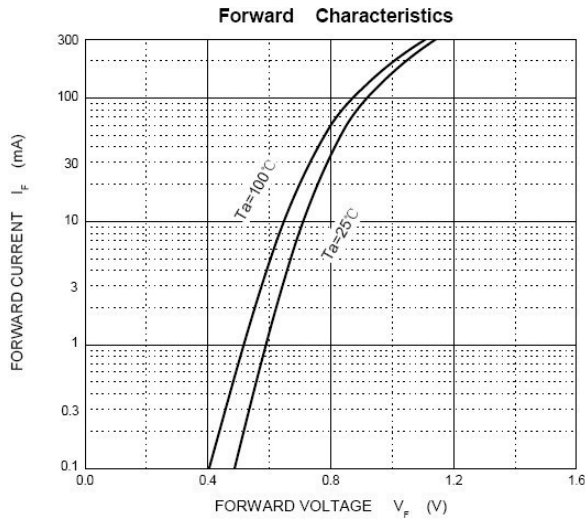
Valid provided that electrodes are kept at ambient temperature.

### Electrical Characteristics (TA = 25°C unless otherwise noted)

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
VRB	Reverse Voltage	IB=100uA	70	---	V
IR	Reverse Leakage Current	VR=70V	---	2.5	uA
VF	Forward Voltage	IF=1mA	---	0.715	V
		IF=10mA	---	0.855	
		IF=50mA	---	1.00	
		IF=150mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=10mA,RL=100Ω IRR=0.1xIR	---	6	nS
CT	Capacitance	VR=0V, f=1MHZ	---	1.5	pF

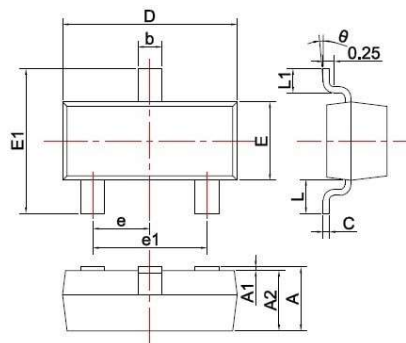
# BAW56/BAV70/BAV99

## Typical Characteristics



## SOT-23 PACKAGE OUTLINE

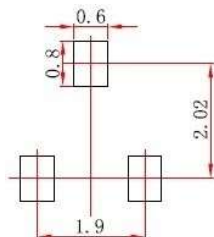
Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN	MAX
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

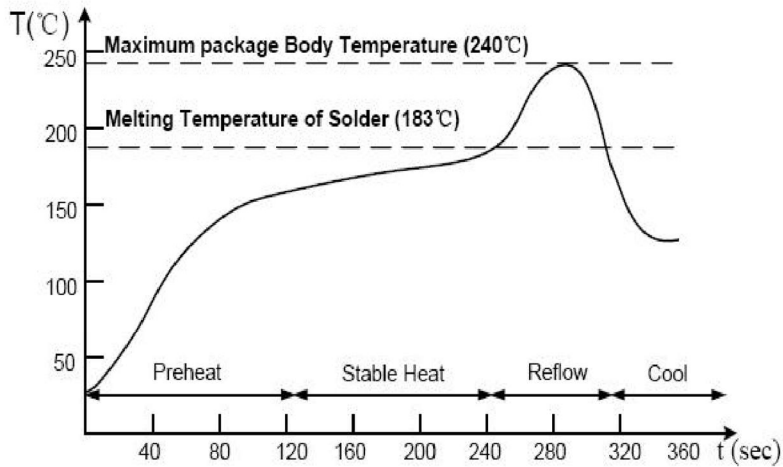
PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
1. Controlling dimension: In millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.

# BAW56/BAV70/BAV99

## Suggested Soldering Temperature Profile

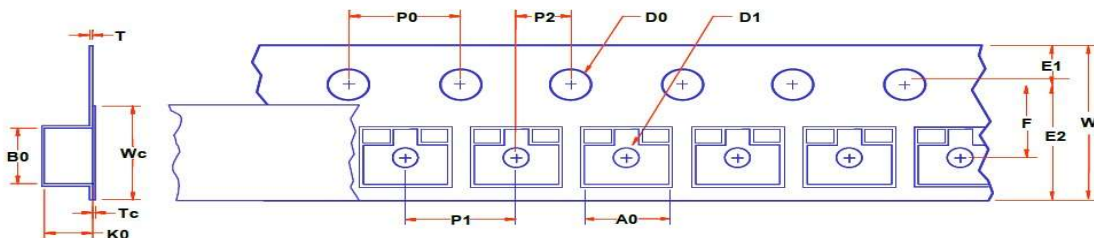


### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## Package Information

### Carrier Dimension(mm)



Dimensions are in millimeter														
Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
SOT23 (8 mm)	3.40 +/-0.10	2.84 +/-0.10	7.95 +/-0.2	1.47 +/-0.05	1.0 +/-0.1	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.1	3.99 +/-0.1	1.27 +/-0.10	0.25 +/-0.05	5.3 +/-0.1	0.05 +/-0.02

## Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SOT-23	7'	178	3	180*118*185	30	380*375*210	180

## **Important Notice and Disclaimer**

DOESHARE has used reasonable care in preparing the information included in this document, but DOESHARE does not warrant that such information is error free. DOESHARE assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

DOESHARE no warranty, representation or guarantee regarding the documents, circuits and products specification, DOESHARE reservation rights to make changes for any documents, products, circuits and specifications at any time without notice.

Purchasers are solely responsible for the choice, selection and use of the DOESHARE products and services described herein, and DOESHARE assumes no liability whatsoever relating to the choice, selection or use of the products and services described herein.

No license, express or implied, by implication or otherwise under any intellectual property rights of DOESHARE.

Resale of DOESHARE products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by DOESHARE for the DOESHARE product or service described herein and shall not create or extend in any manner whatsoever, any liability of DOESHARE.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for* [Diodes - General Purpose, Power, Switching category:](#)

*Click to view products by* [Doeshare manufacturer:](#)

Other Similar products are found below :

[MMBD3004S-13-F](#) [RD0306T-H](#) [BAV17-TR](#) [BAV19-TR](#) [1N3611](#) [NTE156A](#) [NTE574](#) [NTE6244](#) [1SS181-TP](#) [1SS193,LF](#) [1SS400CST2RA](#)  
[SDAA13](#) [SHN2D02FUTW1T1G](#) [LS4151GS08](#) [1N4449](#) [1N456A](#) [1N4934-E3/73](#) [1N914B](#) [1N914BTR](#) [1SS226-TP](#) [RFUH20TB3S](#)  
[D291S45T](#) [BAV300-TR](#) [BAW56DWQ-7-F](#) [BAW75-TAP](#) [MM230L-CAA](#) [IDW40E65D1](#) [JAN1N3600](#) [LL4151-GS18](#) [053684A](#)  
[SMMSD4148T3G](#) [707803H](#) [NSVDAN222T1G](#) [CDSZC01100-HF](#) [LL4150-M-08](#) [1N4454-TR](#) [BAV199E6433HTMA1](#) [BAS28-7](#)  
[BAW56HDW-13](#) [BAS28 TR](#) [VS-HFA04SD60STR-M3](#) [NSVM1MA152WKT1G](#) [RGP30D-E3/73](#) [BAV99TQ-13-F](#) [BAS21DWA-7](#)  
[BAV99HDW-13](#) [NTE6250](#) [NTE582-4](#) [NTE582-6](#) [MMDB30-E28X](#)