

BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

SURFACE MOUNT SWITCHING DIODES

Voltage 100 V **Power** 200 mW

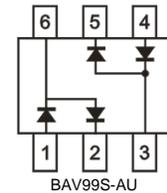
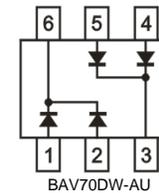
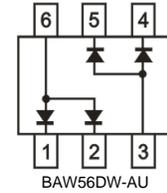
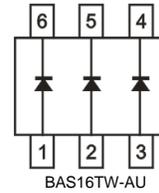
Features

- Fast switching speed.
- Very low leakage current
- Low capacitance
- Surface mount package Ideally Suited for Automatic insertion
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOT-363 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams

SOT-363



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Maximum Dc Blocking Voltage	V _{DC}	100	V
Maximum Average Forward Current	I _{F(AV)}	150	mA
Non-repetitive Peak forward current at T _J (init)=25°C	I _{FSM}	4	A
Power Dissipation	P _D ⁽¹⁾	200	mW
Maximum Junction Capacitance	C _J	1.5	pF
Measured at 1 MHz And Applied V _R = 0 V			
Typical Thermal Resistance	R _{θJA} ⁽¹⁾	625	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.715	V
		$I_F = 10\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.855	
		$I_F = 50\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1	
		$I_F = 150\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1.25	
Reverse Current	I_R	$V_R = 25\text{ V}, T_J = 25^\circ\text{C}$	-	-	0.03	uA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	2.5	
Maximum Reverse Recovery Time	$T_{RR}^{(2)}$	---	-	-	4	ns

NOTES :

1. Mounted on 11.4cm x 7.4cm FR4 PCB.
2. Test Condition : $I_F=10\text{mA}$ to $I_R=10\text{mA}$, Recovery to 1mA.

BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

TYPICAL CHARACTERISTIC CURVES

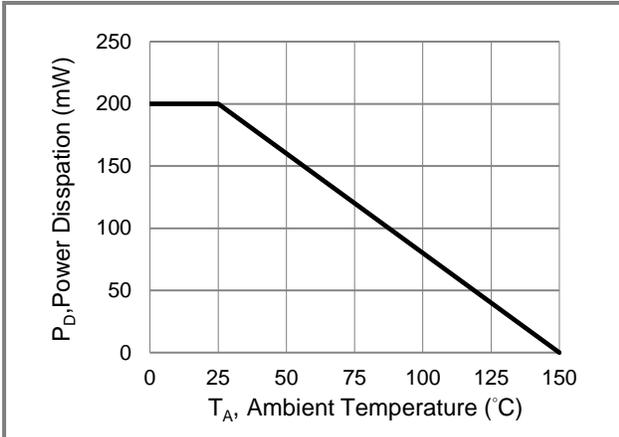


Fig.1 Power Derating Curve

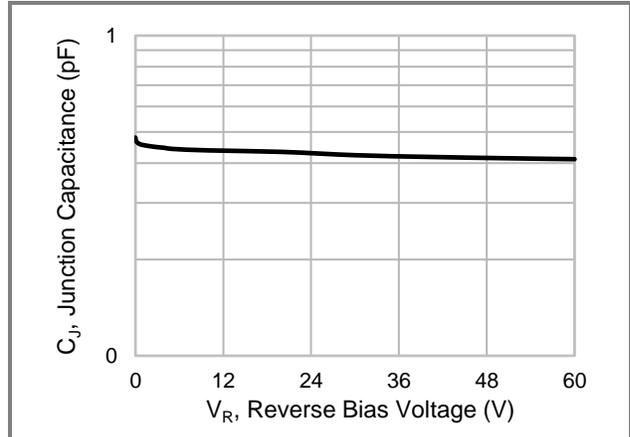


Fig.2 Typical Junction Capacitance

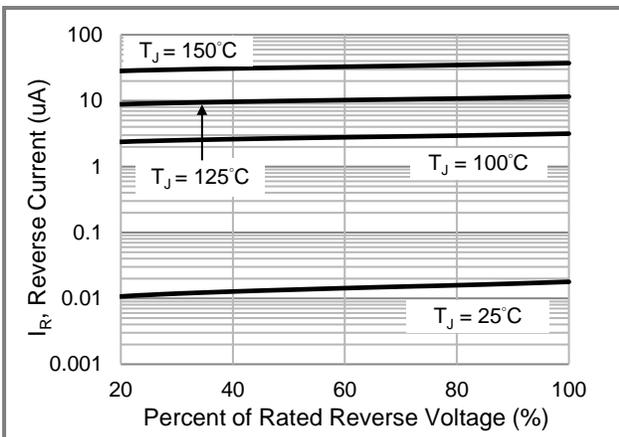


Fig.3 Typical Reverse Characteristics

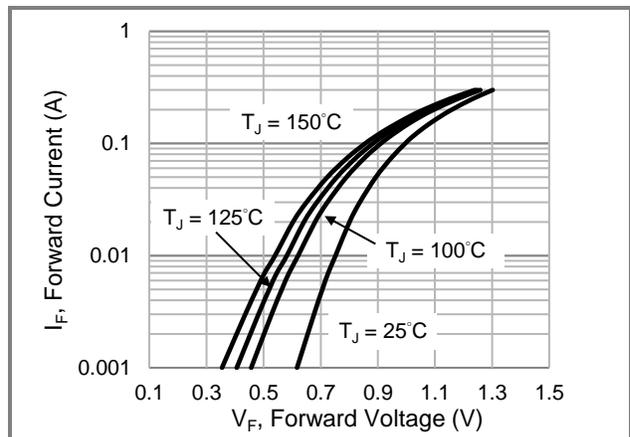


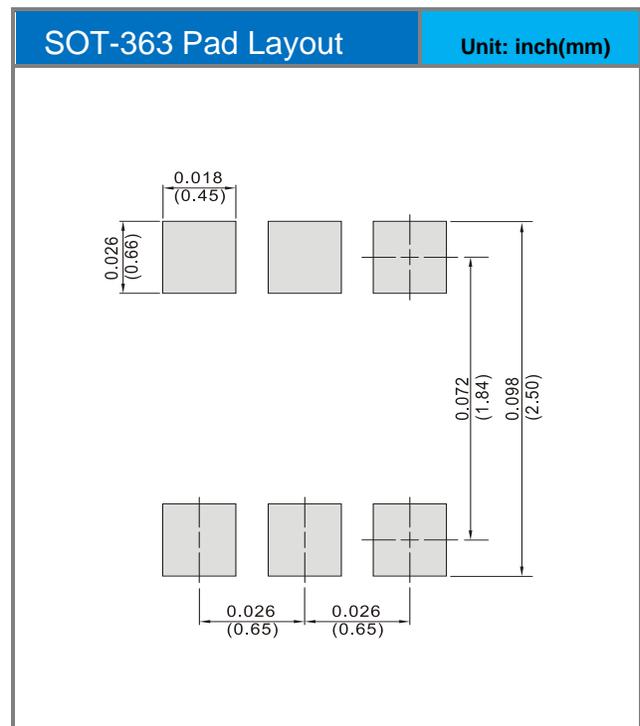
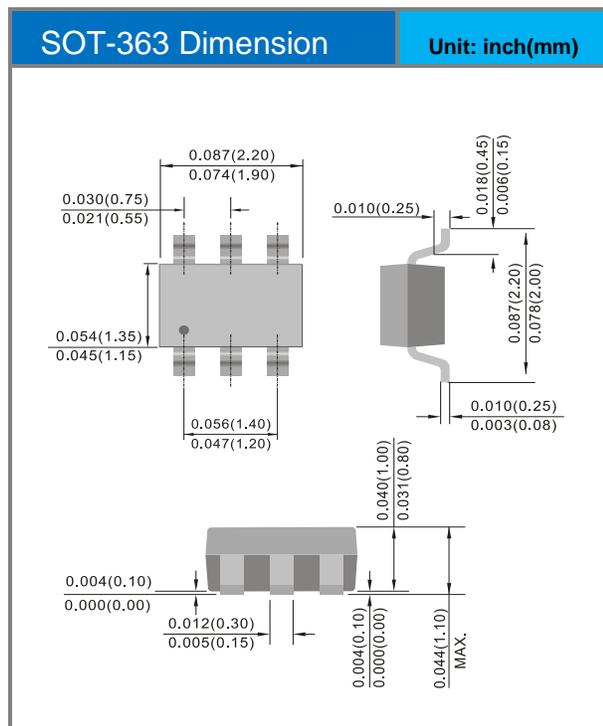
Fig.4 Typical Forward Characteristics

BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAS16TW-AU	SOT-363	3K / 7" Reel	16T
BAW56DW-AU	SOT-363	3K / 7" Reel	JC
BAV70DW-AU	SOT-363	3K / 7" Reel	JA
BAV99S-AU	SOT-363	3K / 7" Reel	JB

Packaging Information & Mounting Pad Layout



BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document follow PCN procedure. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.