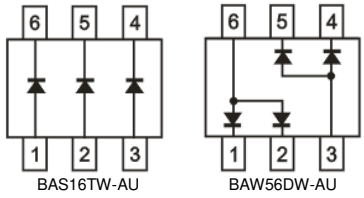
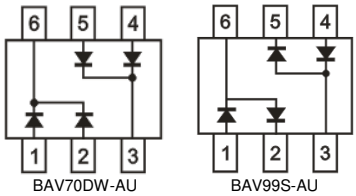
BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

SURFACE MOUNT SWITCHING DIODES

Voltage	100 V	Power	200 mW

SOT-363





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

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

PARAMETER		SYMBOL	LIMIT	UNITS
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	tp = 0.001 ms	I_{FSM}	4	A
Power Dissipation		P_D (1)	200	mW
Maximum Junction Capacitance Measured at 1 MHZ And Applied V_R = 0 V		C_J	1.5	pF
Typical Thermal Resistance		$R_{\theta JA}$ (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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 1 mA, T_J = 25 °C	-	-	0.715	V
		I_F = 10 mA, T_J = 25 °C	-	-	0.855	
		I_F = 50 mA, T_J = 25 °C	-	-	1	
		I_F = 150 mA, T_J = 25 °C	-	-	1.25	
Reverse Current	I_R	V_R = 25 V, T_J = 25 °C	-	-	0.03	uA
		V_R = 100 V, T_J = 25 °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=10mA to I_R=10mA, Recovery to 1mA.

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

TYPICAL CHARACTERISTIC CURVES

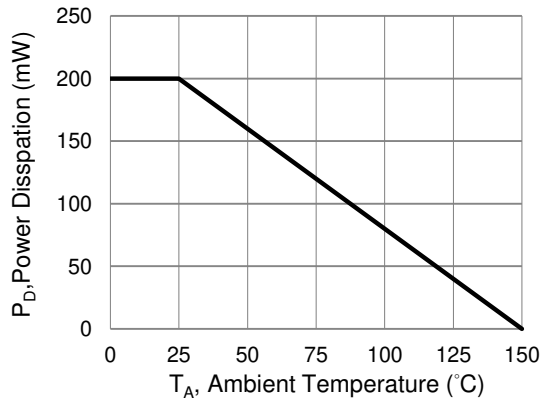


Fig.1 Power Derating Curve

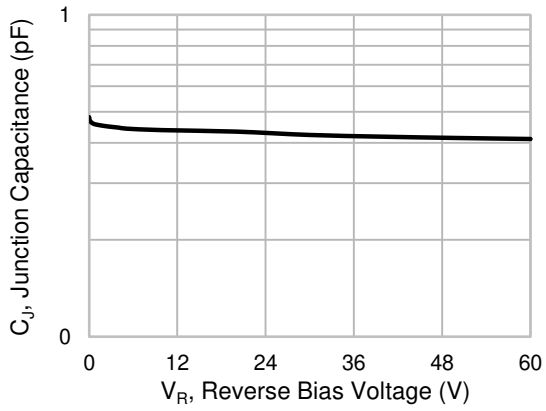


Fig.2 Typical Junction Capacitance

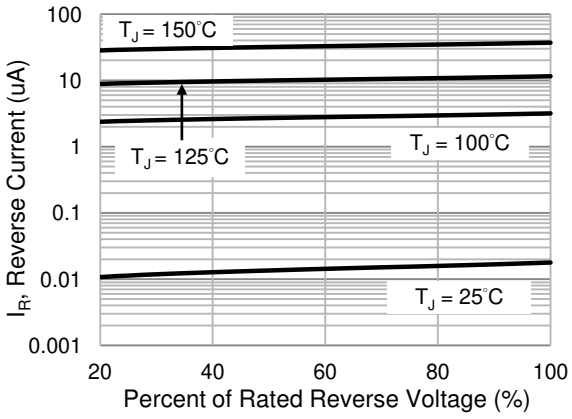


Fig.3 Typical Reverse Characteristics

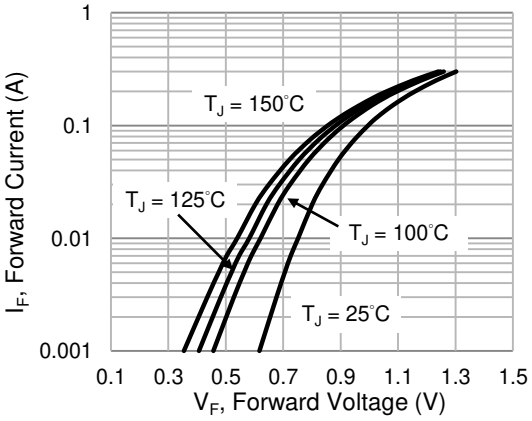


Fig.4 Typical Forward Characteristics

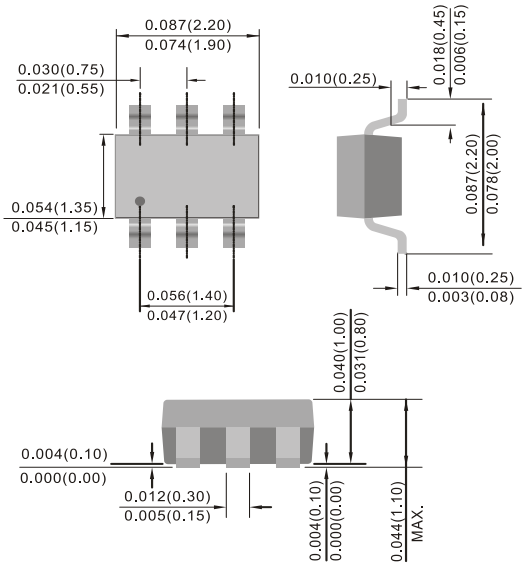
BAS16TW-AU / BAW56DW-AU / BAV70DW-AU / BAV99S-AU

Part No Packing Code Version

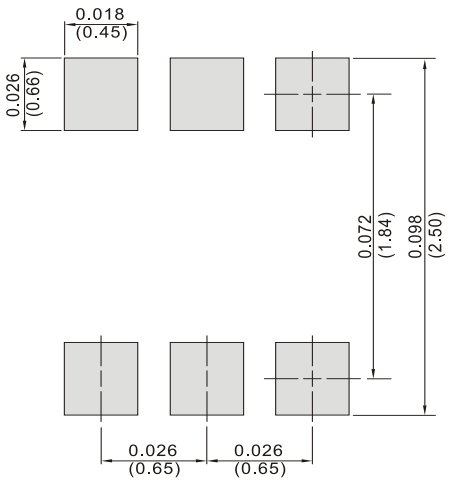
Part No Packing Code	Package Type	Packing Type	Marking	Version
BAS16TW-AU_R1_000A1	SOT-363	3K / 7" Reel	16T	Halogen free
BAW56DW-AU_R1_000A1	SOT-363	3K / 7" Reel	JC	Halogen free
BAV70DW-AU_R1_000A1	SOT-363	3K / 7" Reel	JA	Halogen free
BAV99S-AU_R1_000A1	SOT-363	3K / 7" Reel	JB	Halogen free

Packaging Information & Mounting Pad Layout

SOT-363 Dimension — Unit: inch(mm)



SOT-363 Pad Layout — Unit: inch(mm)



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 anytime without notification. 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.