

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

SURFACE MOUNT SWITCHING DIODES

Voltage

100 V

Power

200 mW

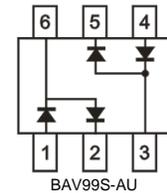
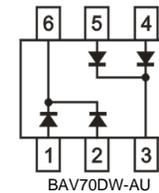
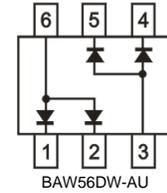
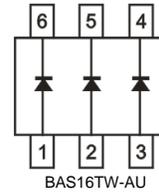
Features

- 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

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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.

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TYPICAL CHARACTERISTIC CURVES

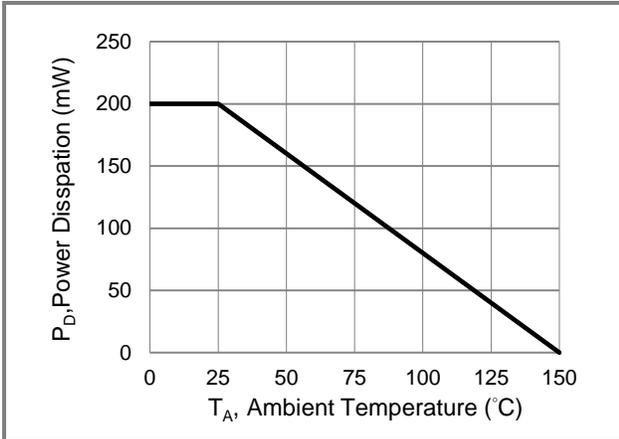


Fig.1 Power Derating Curve

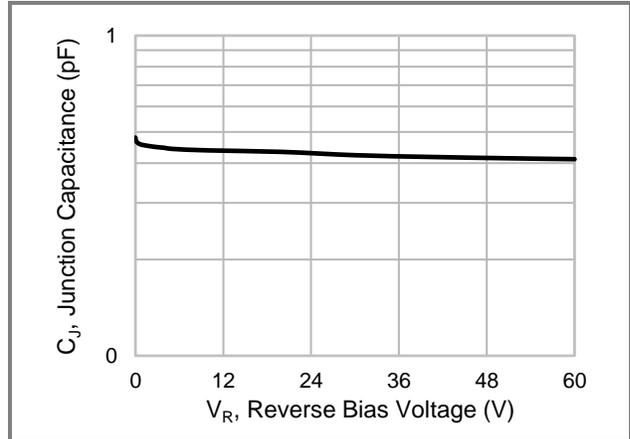


Fig.2 Typical Junction Capacitance

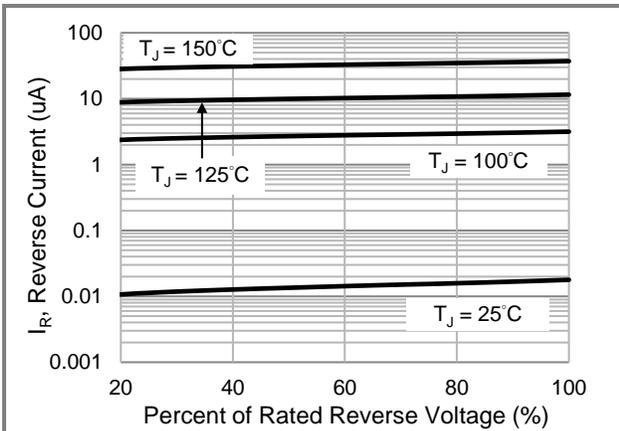


Fig.3 Typical Reverse Characteristics

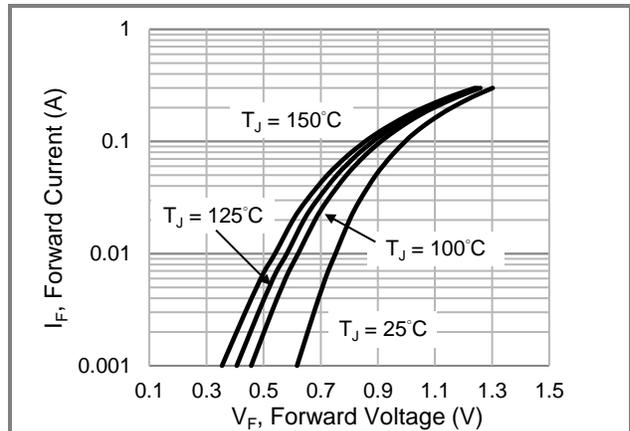


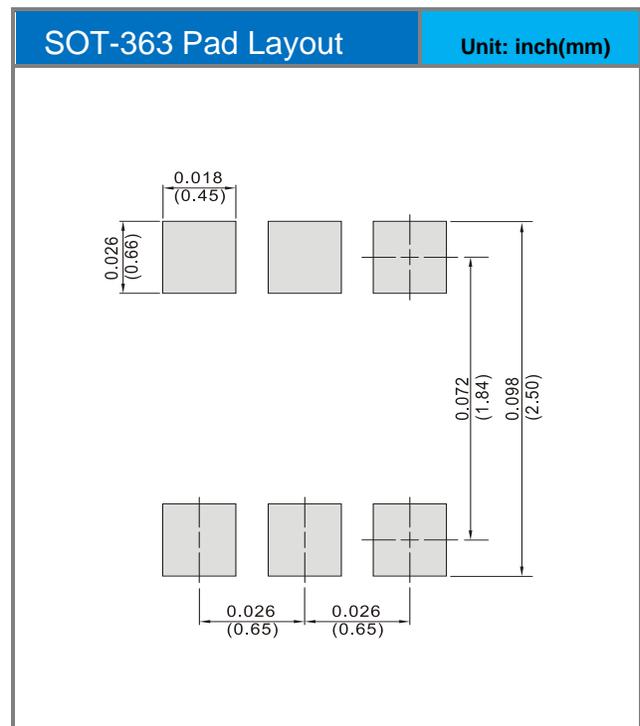
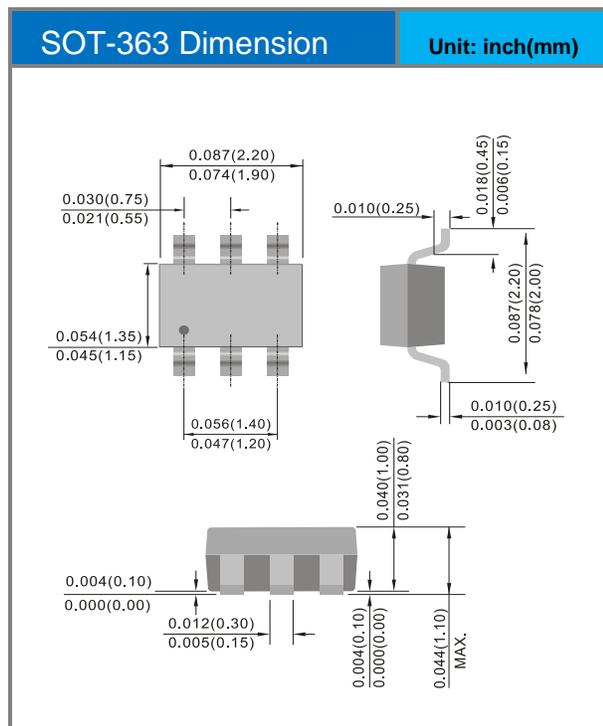
Fig.4 Typical Forward Characteristics

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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



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