

BAV199W-AU

Surface Mount Switching Diodes

Voltage	100 V	Current	0.2 A
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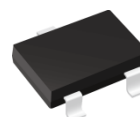
Features

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

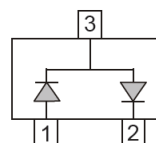
Mechanical Data

- Case : SOT-323 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0002 ounces, 0.005 grams

SOT-323



SERIES



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

PARAMETER		SYMBOL	LIMIT	UNITS
Reverse Voltage		V _R	100	V
Peak Reverse Voltage		V _{RM}	100	V
Maximum Average Forward Current		I _{F(AV)}	0.2	A
Non-repetitive Peak forward current at T _J (init)=25 °C	tp=0.001ms	I _{FSM}	4	A
	tp=1ms		1	
	tp=1s		0.5	
Peak Forward Surge Current tp≤0.5ms ; D≤0.25		I _{FRM}	400	mA
Power Dissipation ^(Note 1)		P _D	200	mW
Junction Capacitance Measured at 1 MHZ And Applied V _R = 0 V		C _J	2	pF
Typical Thermal Resistance ^(Note 1)		R _{θJA}	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.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.9	V
		$I_F = 10\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1	
		$I_F = 50\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1.1	
		$I_F = 150\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1.25	
Reverse Current	I_R	$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	nA
		$V_R = 100\text{ V}, T_J = 150^\circ\text{C}$	-	-	80	
Reverse Recovery Time ^(Note 2)	T_{RR}	-	-	-	3	μs

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Test Condition : $I_F=10\text{mA}$ to $I_R=10\text{mA}$, Recovery to 1mA , $R_L=100\Omega$.

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TYPICAL CHARACTERISTIC CURVES

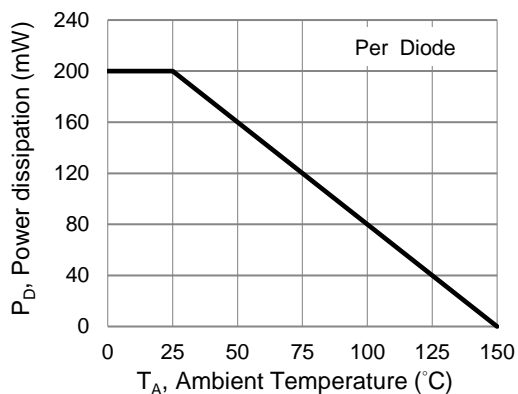


Fig.1 Forward Current Derating Curve

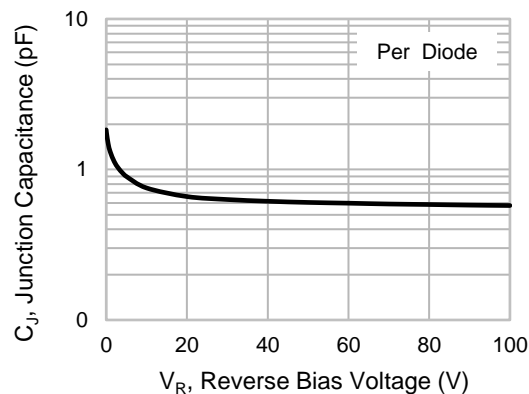


Fig.2 Typical Junction Capacitance

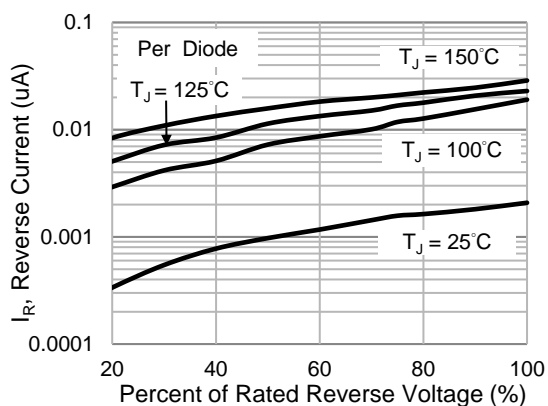


Fig.3 Typical Reverse Characteristics

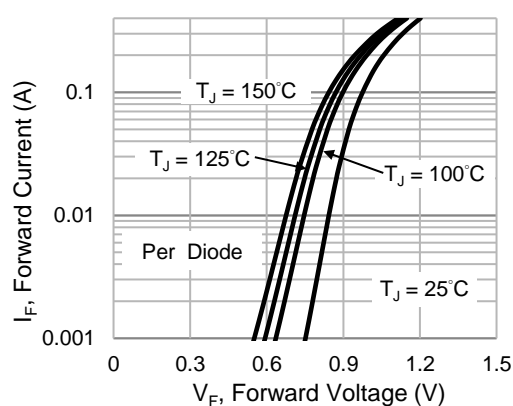


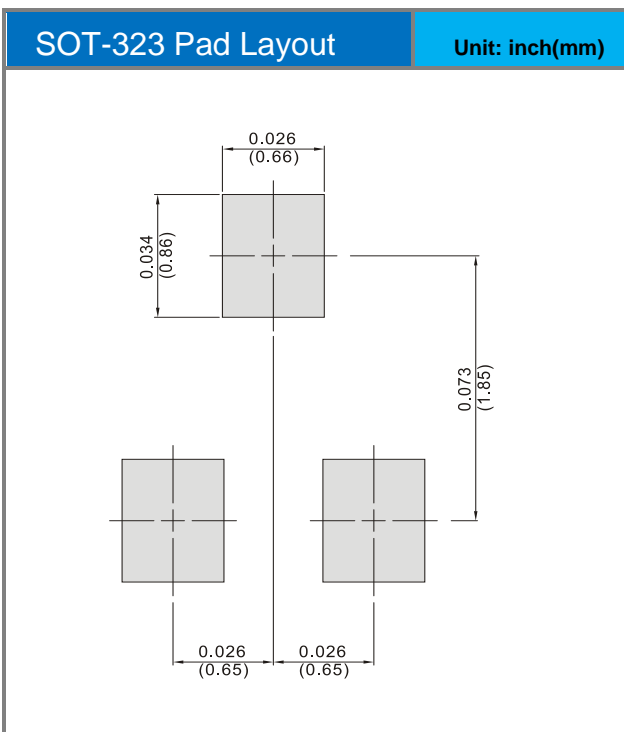
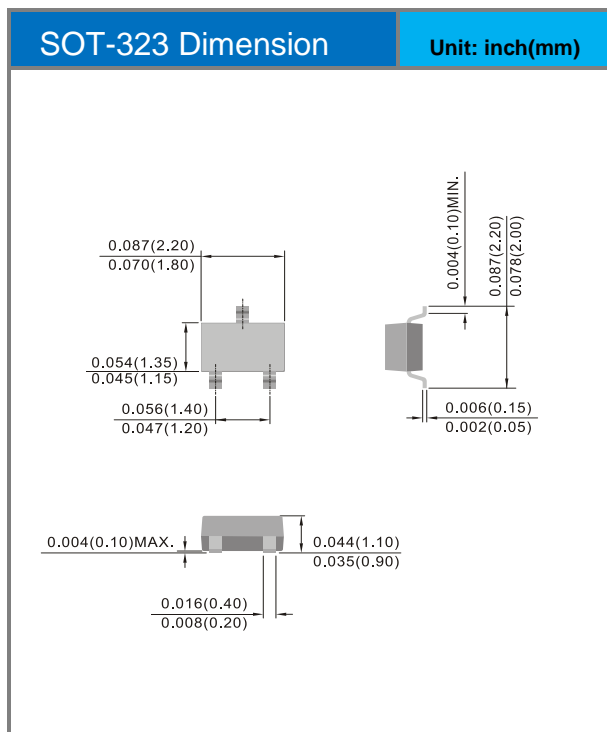
Fig.4 Typical Forward Characteristics

BAV199W-AU

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
BAV199W-AU_R1_000A1	SOT-323	3K / 7" Reel	PB	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout





BAV199W-AU

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