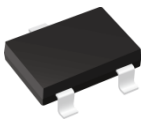
BAV199W-AU

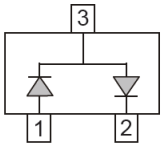
Surface Mount Switching Diodes

Voltage	100 V	Current	0.2 A

SOT-323



SERIES



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

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 tp=1ms tp=1s	I_{FSM}	4 1 0.5	A
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)		$R_{\theta JA}$	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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 1 mA, T_J = 25 °C	-	-	0.9	V
		I_F = 10 mA, T_J = 25 °C	-	-	1	
		I_F = 50 mA, T_J = 25 °C	-	-	1.1	
		I_F = 150 mA, T_J = 25 °C	-	-	1.25	
Reverse Current	I_R	V_R = 100 V, T_J = 25 °C	-	-	5	nA
		V_R = 100 V, T_J = 150 °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=10mA to I_R=10mA, Recovery to 1mA, R_L=100Ω.

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TYPICAL CHARACTERISTIC CURVES

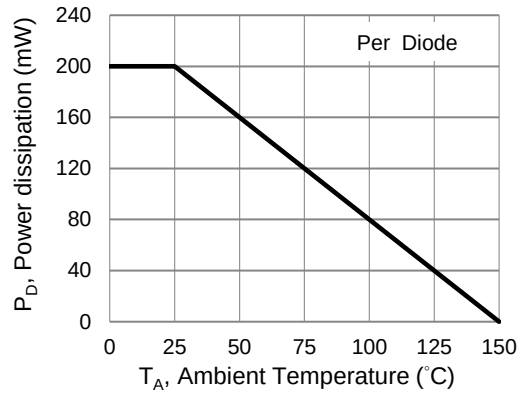

Fig.1 Forward Current Derating Curve

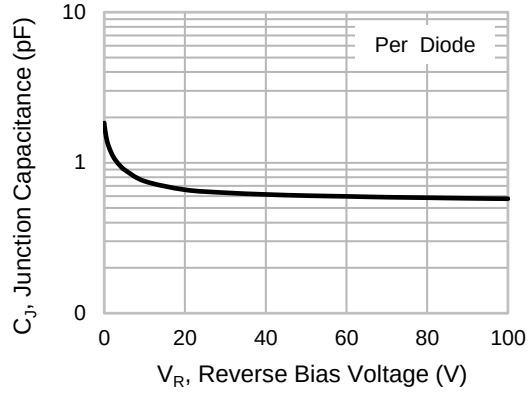

Fig.2 Typical Junction Capacitance

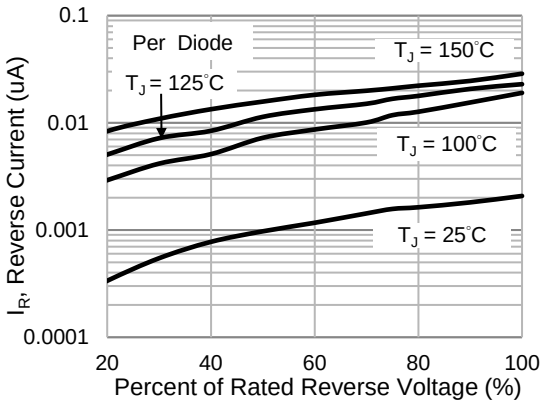

Fig.3 Typical Reverse Characteristics

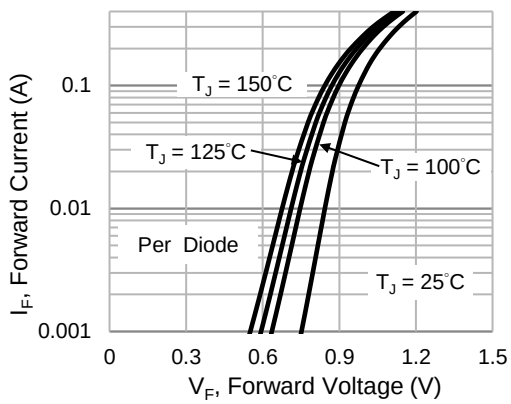

Fig.4 Typical Forward Characteristics

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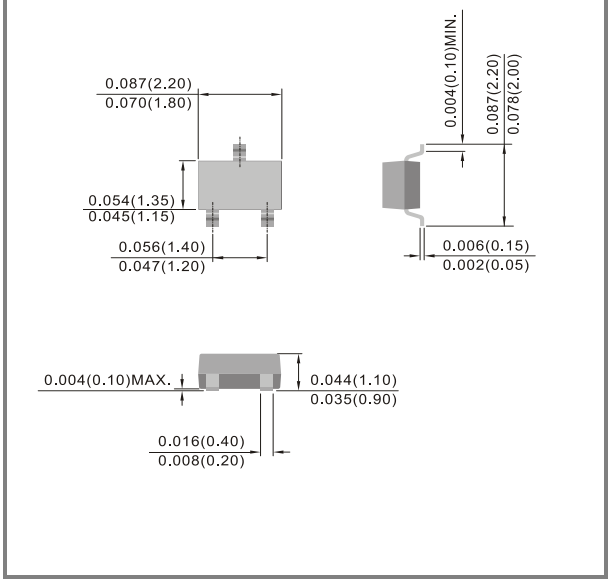
Product and Packing Information

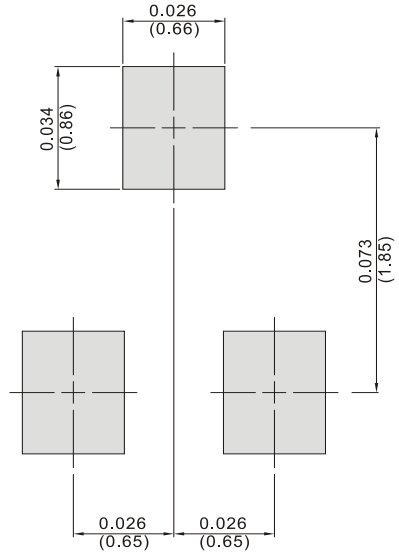
Part No.	Package Type	Packing Type	Marking
BAV199W-AU	SOT-323	3K / 7" Reel	PB

Packaging Information & Mounting Pad Layout

SOT-323 Dimension — Unit: inch(mm)



SOT-323 Pad Layout — Unit: inch(mm)



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