THE DATASHEET OF

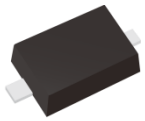
BAS316-AU_R1_000A1

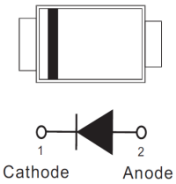
BAS316-AU

SURFACE MOUNT SWITCHING DIODES

Voltage	100 V	Power	400 mW

SOD-323





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: SOD-323 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 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		$I_{F(AV)}$	250	mA
Non-repetitive Peak forward current at T_J(init)=25°C	tp = 0.001 ms tp = 1 ms tp = 1 s	I_{FSM}	4 1 0.5	A
Repetitive peak forward current tp ≦ 0.5 ms ; D ≦ 0.25		I_{FRM}	500	mA
Power Dissipation		P_D (1)	400	mW
Maximum Junction Capacitance Measured at 1 MHZ And Applied V_R = 0 V		C_J	1.5	pF
Typical Thermal Resistance		$R_{\theta JA}$ (2) $R_{\theta JC}$ (1)	500 200	°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	-	-	0.715	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	-	-	0.5	
Maximum Reverse Recovery Time	T_{RR} (3)	---	-	-	4	ns

NOTES:

1. Mounted on aluminum plate.
2. Mounted on a FR4, single-sided copper, with 114 x 76mm PCB.
3. Test Condition：I_F=10mA to I_R=10mA, Recovery to 1mA, R_L=100Ω .

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TYPICAL CHARACTERISTIC CURVES

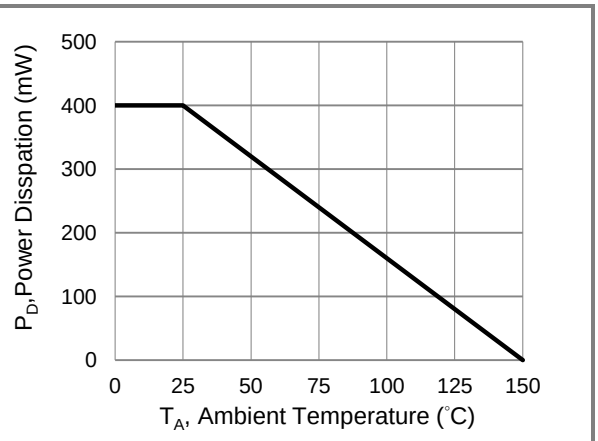

Fig.1 Power Derating Curve

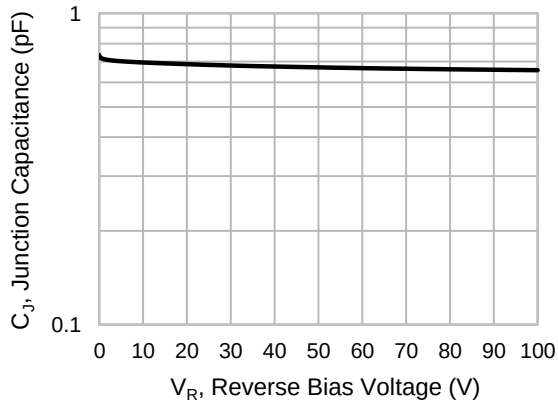

Fig.2 Typical Junction Capacitance

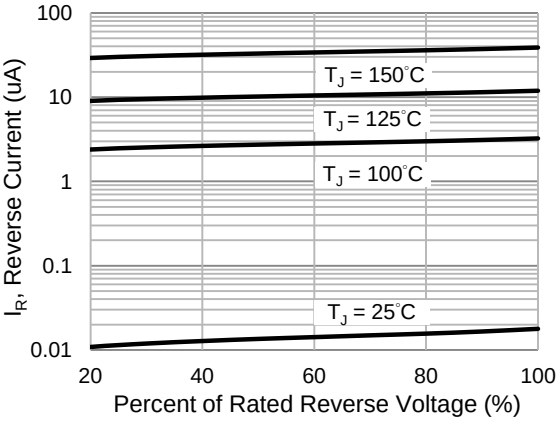

Fig.3 Typical Reverse Characteristics

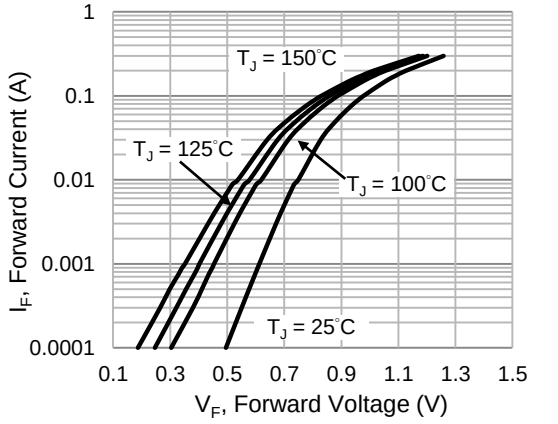

Fig.4 Typical Forward Characteristics

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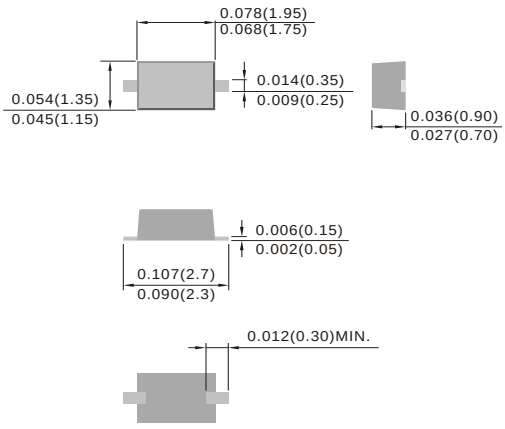
Part No Packing Code Version

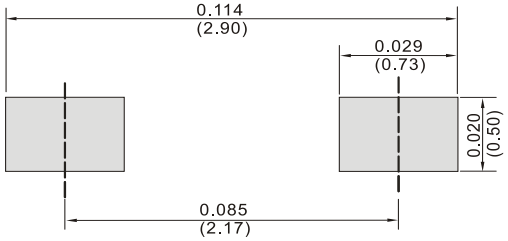
Part No Packing Code	Package Type	Packing Type	Marking	Version
BAS316-AU_R1_000A1	SOD-323	5K / 7" Reel	A16	Halogen free

Packaging Information & Mounting Pad Layout

SOD-323 Dimension — Unit: inch(mm)



SOD-323 Pad Layout — Unit: inch(mm)



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