



BAS316

SURFACE MOUNT SWITCHING DIODES

Voltage 100 V **Power** 400 mW

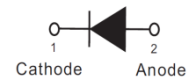
Features

- 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

Mechanical Data

- Case: SOD-323 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams

SOD-323



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	I _{FSM}	tp = 0.001 ms	4
		tp = 1 ms	1
		tp = 1 s	0.5
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 _{θJA} ⁽²⁾	500	°C/W
	R _{θJC} ⁽¹⁾	200	
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C



BAS316

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.715	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
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	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 : $I_F=10\text{mA}$ to $I_R=10\text{mA}$, Recovery to 1mA, $R_L=100\Omega$.



BAS316

TYPICAL CHARACTERISTIC CURVES

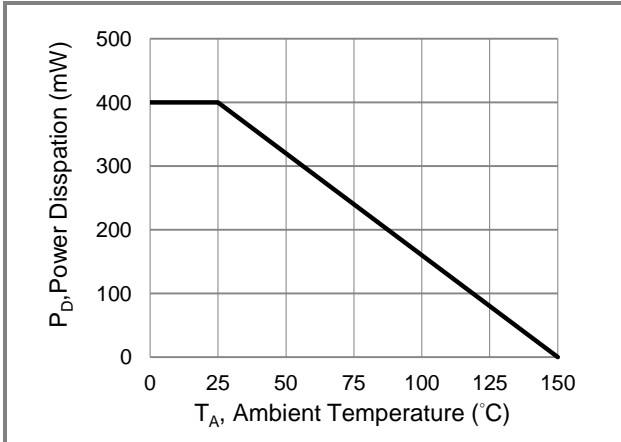


Fig.1 Power Derating Curve

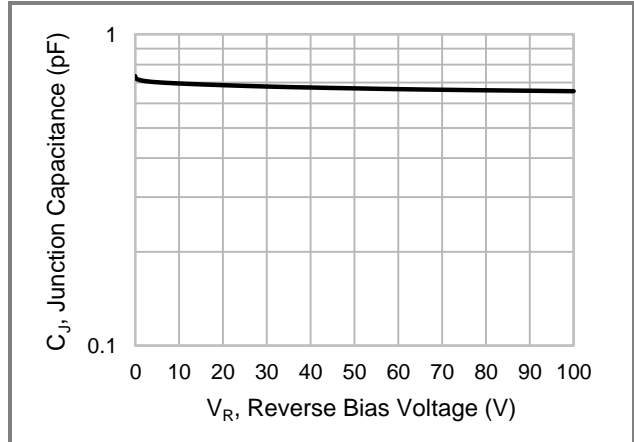


Fig.2 Typical Junction Capacitance

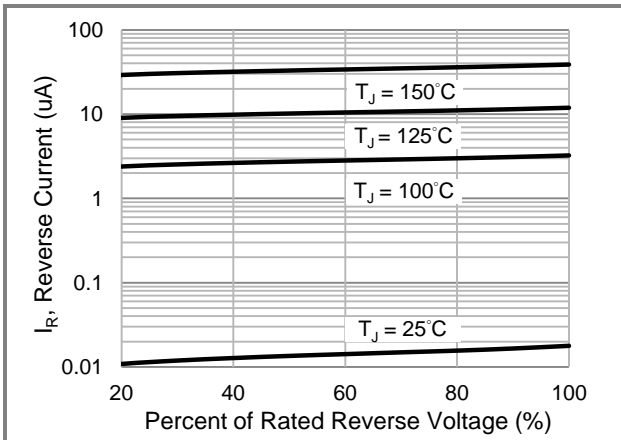


Fig.3 Typical Reverse Characteristics

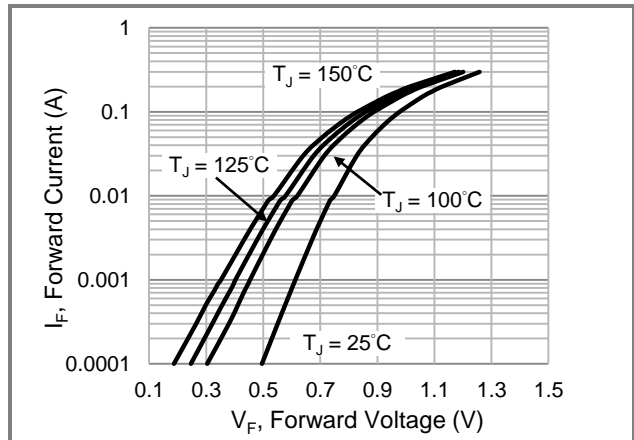


Fig.4 Typical Forward Characteristics

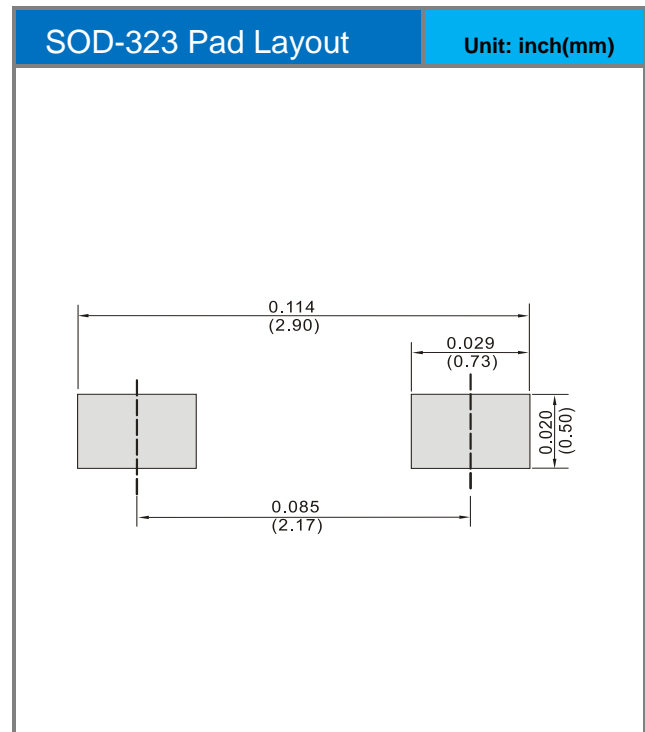
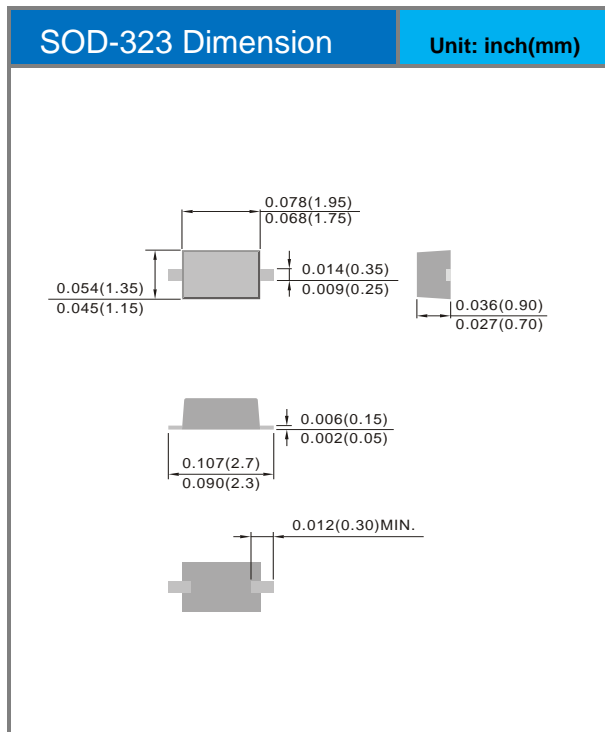


BAS316

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAS316_R1_00001	SOD-323	5K / 7" Reel	A16	Halogen free

Packaging Information & Mounting Pad Layout





BAS316

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 requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, 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.