GSDBAS316D3F

Switching Diode

Product Description

High-speed switching diode, encapsulated in a small SOD323 (SC-76) Surface-Mounted Device (SMD) plastic package

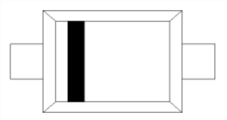
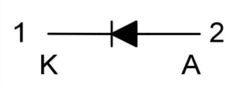
Features

- High switching speed: trr ≤ 4 ns
- Low capacitance
- Low leakage current
- Reverse voltage: V_R ≤ 100 V
- Repetitive peak reverse voltage: V_{RRM} ≤ 100

Mechanical Data

- SOD-323 Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- RoHS Compliant and Halogen Free

Package & Pin Assignment

SOD-323	Equivalent Circuit
 *Band indicates Cathode	

Pin	Symbol	Description	Pin	Symbol	Description
1	K	Cathode	**2**	A	Anode

Ordering and Marking Information

Ordering Information			
Part Number	**Package**	**Marking Code**	**Quantity / Reel**
GSDBAS316D3F	SOD-323	A6	3,000 PCS

GSDBAS316 1 F

- **Product Code:** GSDBAS316
- **Package Code:** **1** **D3** for SOD-323
- **Green Level:** **F** for RoHS Compliant and Halogen Free

Marking Information

A6	- **Product Code:** **A6**	

Absolute Maximum Ratings (T$_A$=25°C unless otherwise specified)

Symbol	Parameter		Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage		100	V
V_{RM}	Non-Repetitive Peak Reverse Voltage		100	V
I_F	Forward Continuous Current		250	mA
I_{FRM}	Repetitive Peak Forward Current		300	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current	t=1.0µs	4	A
		t=1.0ms	1	A
		t=1.0s	0.5	A
P_D	Power Dissipation		200	mW
T_J	Junction Temperature		150	°C
T_{STG}	Storage Temperature		-55 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

Electrical Characteristics (T$_A$=25°C unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Max	Units
V_F	Forward Voltage	I_F=1mA		0.715	V
		I_F=10mA		0.855	V
		I_F=50mA		1.0	V
		I_F=150mA		1.25	V
V_R	Breakdown Voltage	I_R=100uA	100		V
		I_R=5uA	75		V
I_R	Reverse Current	V_R = 20V		30	nA
		V_R = 75V		1	µA
		V_R = 100V		5	µA
C_T	Capacitance	V_R = 0V, f = 1MHz		2	pF
t_{rr}	Reverse Recovery Time	I_F = I_R=10mA, I_{RR} = 0.1x I_R		4	ns

Typical Performance Characteristics

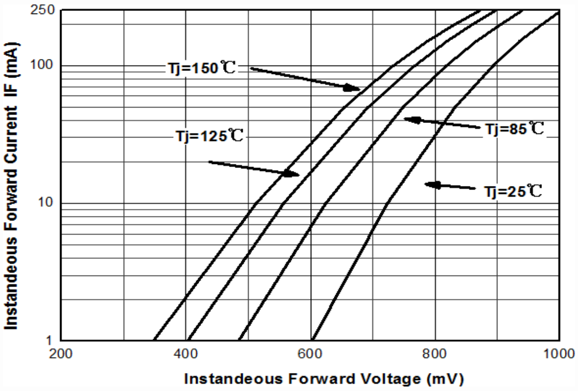


Figure 1. Typical Instantaneous Forward Characteristics

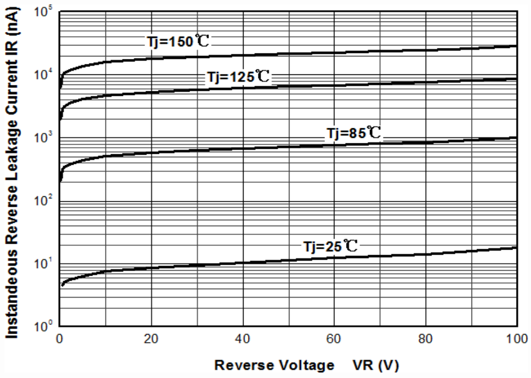


Figure 2. Typical Reverse Leakage Characteristics

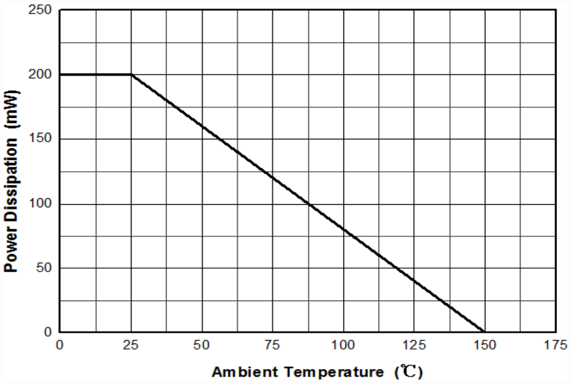


Figure 3. Power Derating Curve

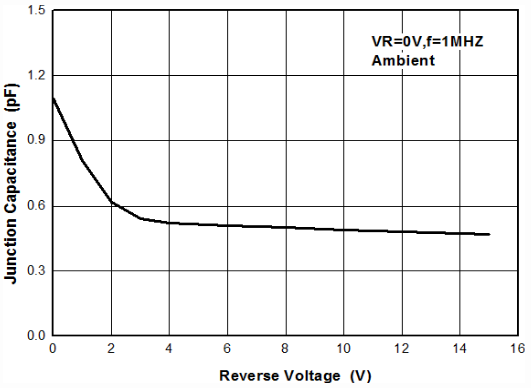
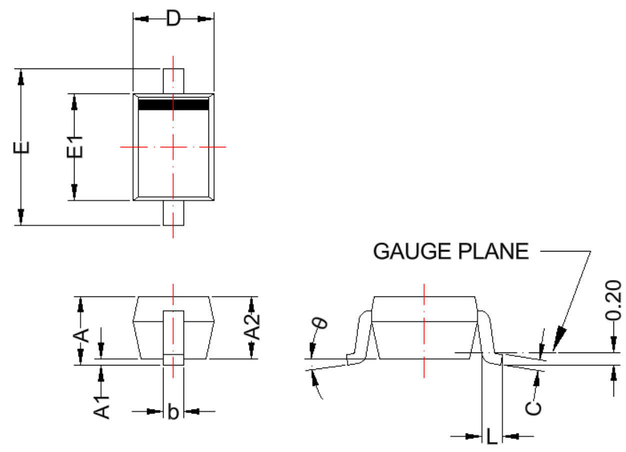


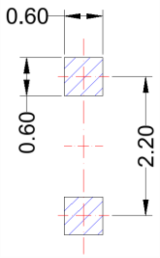
Figure 4. Capacitance vs Reverse Voltage (V_R)

SOD-323

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	**Millimeters**		**Inches**	
	MIN	**MAX**	**MIN**	**MAX**
A	---	1.10	---	0.043
A1	0.00	0.10	0.000	0.004
A2	0.80	---	0.031	---
B	0.25	0.40	0.010	0.016
c	0.08	0.25	0.003	0.010
D	1.10	1.40	0.043	0.055
E	2.30	2.70	0.091	0.106
E1	1.60	1.80	0.063	0.071
L	0.10	0.40	0.004	0.016
θ	0º	8º	0º	8º

NOTE:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

NOTICE

- Globaltech Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all Globaltech Semiconductor products described or contained herein. Globaltech Semiconductor products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner.

- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Globaltech Semiconductor makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

- The information furnished is believed to be accurate and reliable. However, Globaltech Semiconductor assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties, which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Globaltech Semiconductor. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information without express written approval of Globaltech Semiconductor.

CONTACT US

GS Headquarter	
🏢	4F, NO.43-1, Lane 11, Sec. 6, Minquan E. Rd Neihu District, Taipei City 114761, Taiwan (R.O.C).
☎	886-2-2657-9980
📠	886-2-2657-3630
✉@	sales_twn@gs-power.com

RD Division	
🏢	824 Bolton Drive Milpitas. CA. 95035
☎	1-408-457-0587