

GSDSS1□D3F Series

Schottky Barrier Diode

Product Description

Reverse Voltage 20V to 40V.
Forward Current 1.0A



Features

- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- RoHS Compliant and Halogen Free

Mechanical Data

- Case : Molded Plastic, SOD-323 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes Cathode End

Package and Pin Assignment

| SOD-323 | | Equivalent Circuit |
|---|-------------|--|
|  | |  |
| Pin | Description | |
| 1 | Anode | |
| 2 | Cathode | |

Ordering and Marking Information

| Ordering Information | | | |
|----------------------|---------|--------------|---------------|
| Part Number | Package | Marking Code | Quantity/Reel |
| GSDSS12D3F | SOD-323 | SJ | 3000 PCS |
| GSDSS13D3F | SOD-323 | SK | 3000 PCS |
| GSDSS14D3F | SOD-323 | SL | 3000 PCS |

GSDSS1 1 **D3 F**

- **Product Code:**
GSDSS1

- **Green Level:**
F for RoHS Compliant and Halogen Free

- **Voltage Code:**
1 is 2, 3 and 4
For examples 2 stands for 20V and 4 stands for 40V

- **Package Code:**
D3 for SOD-323 Package

Marking Information

S 1

- **Product Code:**

S

- **Voltage Code:**

1 is J, K and L

For examples J stands for 20V
and L stands for 40V

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.)

| Symbol | Description | 12D3F | 13D3F | 14D3F | Unit |
|------------|---|------------|-------|-------|------|
| V_{RRM} | Maximum Repetitive Peak Reverse Voltage | 20 | 30 | 40 | V |
| V_{RMS} | Maximum RMS Voltage | 14 | 21 | 28 | V |
| V_{DC} | Maximum DC Blocking Voltage | 20 | 30 | 40 | V |
| $I_{(AV)}$ | Maximum Average Forward Rectified Current | 1.0 | | | A |
| I_{FSM} | Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on rated Load (JEDEC Method) | 25 | | | A |
| V_F | Maximum Forward Voltage at 1.0A | 0.45 | 0.55 | 0.6 | V |
| I_R | Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}C$ | 1 | | | mA |
| | $T_A=100^{\circ}C$ | 10 | | | mA |
| C_J | Typical Junction Capacitance ⁽¹⁾ | 110 | | | pF |
| T_J | Junction Temperature Range | -55 to 150 | | | °C |
| T_{STG} | Storage Temperature Range | -55 to 150 | | | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 1.0 V_{DC}.

Typical Characteristics (Ratings at 25°C Ambient Temperature Unless Otherwise Specified.)

Fig.1 Forward Current Derating Curve

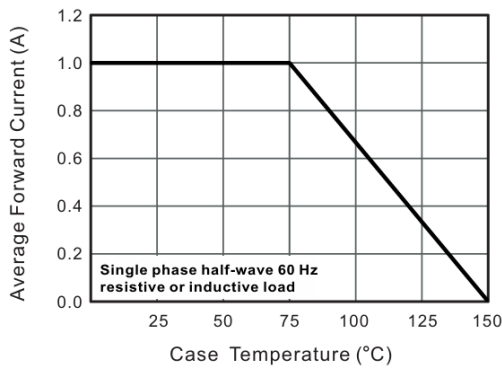


Fig.2 Typical Reverse Characteristics

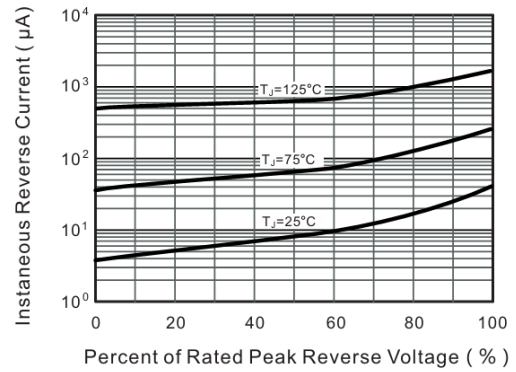


Fig.3 Typical Forward Characteristic

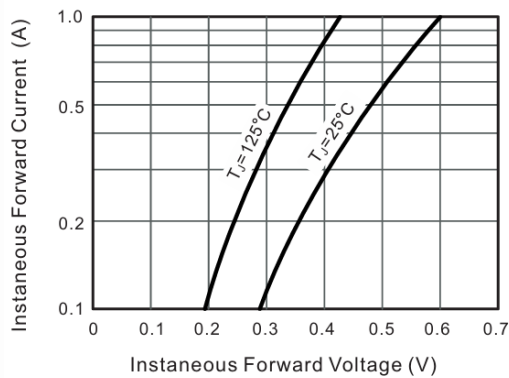


Fig.4 Typical Junction Capacitance

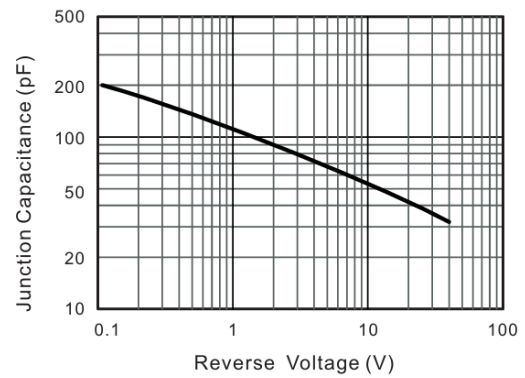
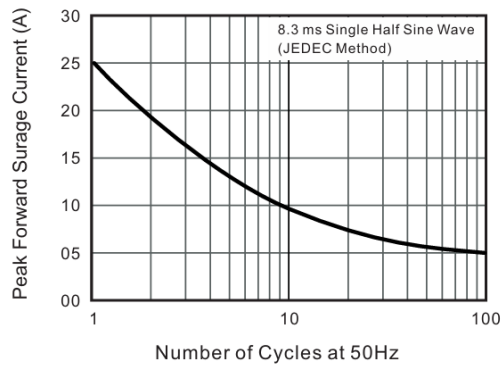


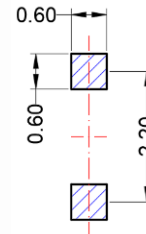
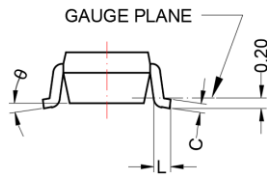
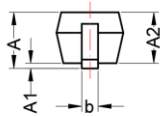
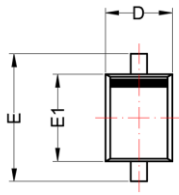
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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 | 1.15 | 1.40 | 0.045 | 0.055 |
| E | 2.30 | 2.75 | 0.091 | 0.108 |
| E1 | 1.40 | 1.80 | 0.055 | 0.071 |
| L | 0.08 | - | 0.003 | - |
| θ | 0° | 8° | 0° | 8° |





NOTE:



Dimensions are exclusive of Burrs, Mold Flash and 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.
- 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,Lane11,Sec.6,Minquan E.Rd NeiHu District Taipei City 114, 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 |