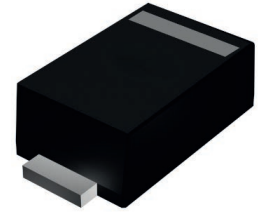


GS32FH thru GS320FH

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 3A

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C



SOD-123FL

Mechanical Data

- Package: SOD-123FL
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

| Parameter | Symbol | GS | GS | GS | GS | GS | GS | GS | GS | GS | Unit | |
|---|------------------|-------------|------|------|------|------|-------------|-------|-------|-------|------|----|
| | | 32FH | 33FH | 34FH | 35FH | 36FH | 38FH | 310FH | 315FH | 320FH | | |
| Repetitive Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Average Rectified Output Current @ 60Hz Sine Wave, Resistance Load, T _L (FIG.1) | I _O | 3 | | | | | | | | | A | |
| Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, T _J =25°C | I _{FSM} | 80 | | | | | | | | | A | |
| Typical Junction Capacitance Measured at 1MHz and Applied on 4.0V D.C | C _J | 165 | | | | | | | | | pF | |
| Thermal Resistance, Junction to Ambient ¹ | R _{θJA} | 70 | | | | | | | | | °C/W | |
| Thermal Resistance, Junction to Lead ¹ | R _{θJL} | 25 | | | | | | | | | | |
| Storage Temperature | T _{STG} | -55 to +150 | | | | | | | | | °C | |
| Junction Temperature | T _J | -55 to +150 | | | | | -55 to +175 | | | | | °C |

Electrical Characteristics (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Condition | GS | GS | GS | GS | GS | GS | GS | GS | Unit | | |
|---|------------------|-----------------------|------|------|------|------|------|------|-------|-------|------|-------|----|
| | | | 32FH | 33FH | 34FH | 35FH | 36FH | 38FH | 310FH | 315FH | | 320FH | |
| Maximum Instantaneous Forward Voltage Drop | V _F | I _{FM} =3.0A | 0.52 | | | 0.65 | | 0.82 | | 0.90 | | V | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ V _{RM} =V _{RRM} | I _{RRM} | T _A =25°C | 0.1 | | | | | 0.1 | | | | | mA |
| | | T _A =100°C | 10 | | | | | 5 | | | | | |

Note:

1. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm x 3mm copper pad areas.

GS32FH thru GS320FH

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 3A

Typical Characteristics Curves

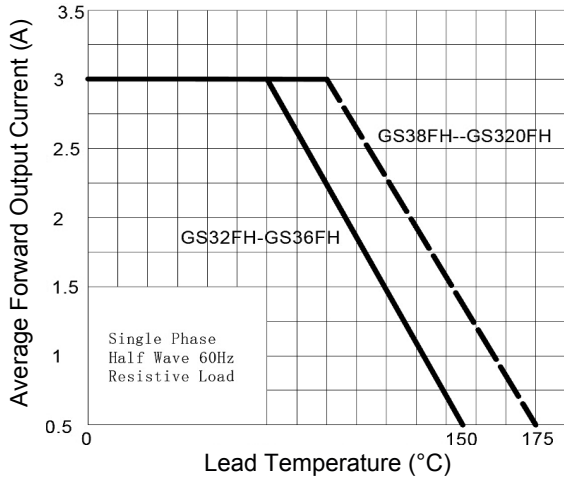


Figure 1. I_o - T_L Curve

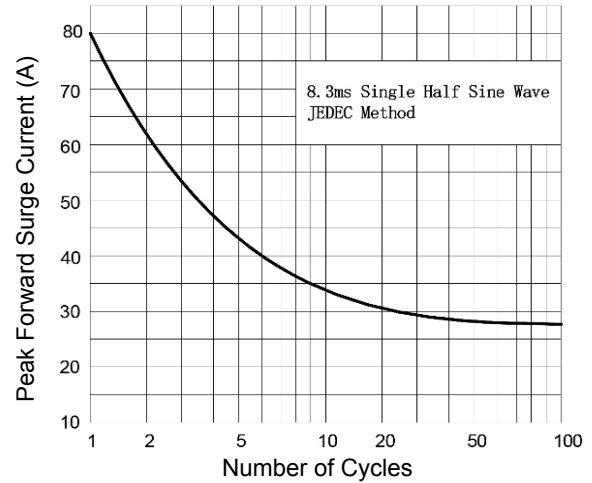


Figure 2. Surge Forward Current Capability

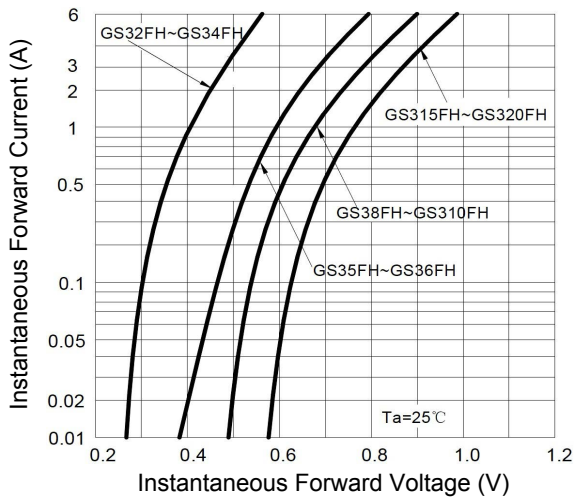


Figure 3. Forward Voltage

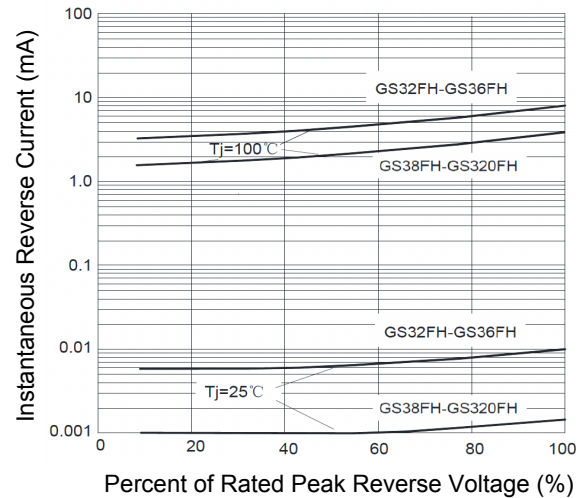
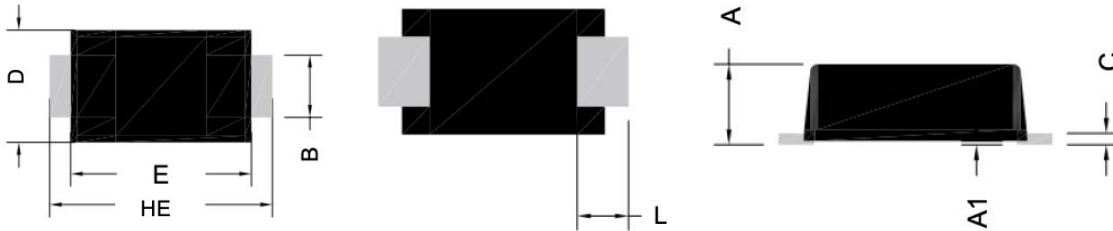


Figure 4. Typical Reverse Characteristics

GS32FH thru GS320FH

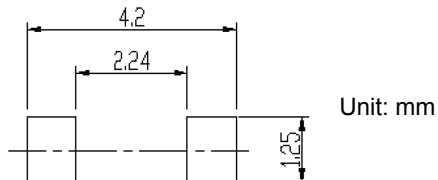
Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 3A

Package Outline Dimensions (SOD-123FL)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.90 | 1.08 | 0.035 | 0.043 |
| A1 | 0.00 | 0.10 | 0.000 | 0.004 |
| B | 0.90 | 1.10 | 0.035 | 0.043 |
| C | 0.10 | 0.20 | 0.004 | 0.008 |
| D | 1.70 | 1.90 | 0.067 | 0.075 |
| E | 2.90 | 3.10 | 0.114 | 0.122 |
| L | 0.56 | 0.76 | 0.022 | 0.030 |
| HE | 3.60 | 3.80 | 0.142 | 0.150 |

Recommended Pad Layout



Order Information

| Device | Package | Marking | Carrier | Quantity |
|---------|-----------|---------|-------------|------------------|
| GS32FH | SOD-123FL | 32F | Tape & Reel | 3,000 Pcs / Reel |
| GS33FH | SOD-123FL | 33F | Tape & Reel | 3,000 Pcs / Reel |
| GS34FH | SOD-123FL | 34F | Tape & Reel | 3,000 Pcs / Reel |
| GS35FH | SOD-123FL | 35F | Tape & Reel | 3,000 Pcs / Reel |
| GS36FH | SOD-123FL | 36F | Tape & Reel | 3,000 Pcs / Reel |
| GS38FH | SOD-123FL | 38F | Tape & Reel | 3,000 Pcs / Reel |
| GS310FH | SOD-123FL | 310F | Tape & Reel | 3,000 Pcs / Reel |
| GS315FH | SOD-123FL | 315F | Tape & Reel | 3,000 Pcs / Reel |
| GS320FH | SOD-123FL | 320F | Tape & Reel | 3,000 Pcs / Reel |