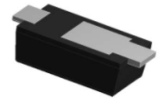
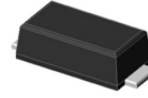


GS32HE thru GS320HE

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 3.0A

Features

- Low profile package
- Ideal for automated placement
- Guard ring 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



Mechanical Data

SOD-123HE

- Package: SOD-123HE
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: Color band denotes the cathode end

Applications

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

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | GS | GS | GS | GS | GS | GS | GS | GS | GS | Unit |
|---|-----------------|-------------|------|------|------|------|-------------|-------|-------|-------|--------------------|
| | | 32HE | 33HE | 34HE | 35HE | 36HE | 38HE | 310HE | 315HE | 320HE | |
| 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 | 3.0 | | | | | | | | | A |
| Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, $T_J=25^\circ\text{C}$ | I_{FSM} | 100 | | | | | 80 | | | | A |
| Typical Junction Capacitance Measured at 1MHz and Applied on 4.0V D.C | C_J | 160 | | | | | | | | | pF |
| Thermal Resistance, Junction to Ambient ¹ | $R_{\theta JA}$ | 60 | | | | | | | | | $^\circ\text{C/W}$ |
| Thermal Resistance, Junction to Lead ¹ | $R_{\theta JL}$ | 6 | | | | | | | | | $^\circ\text{C/W}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |
| Junction Temperature Range | T_J | -55 to +150 | | | | | -55 to +175 | | | | $^\circ\text{C}$ |

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

| Parameter | Symbol | Condition | GS | GS | GS | GS | GS | GS | GS | GS | Unit | |
|---|-----------|-------------------------|------|------|------|------|------|-------|-------|-------|------|-------|
| | | | 32HE | 33HE | 34HE | 35HE | 36HE | 38HE | 310HE | 315HE | | 320HE |
| Maximum Instantaneous Forward Voltage Drop | V_F | $I_{FM}=3.0A$ | 0.55 | | | 0.65 | | 0.85 | | 0.95 | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $V_{RM}=V_{RRM}$ | I_{RRM} | $T_A=25^\circ\text{C}$ | 0.05 | | | | | 0.005 | | | | mA |
| | | $T_A=100^\circ\text{C}$ | 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.

Ratings and Characteristics Curves

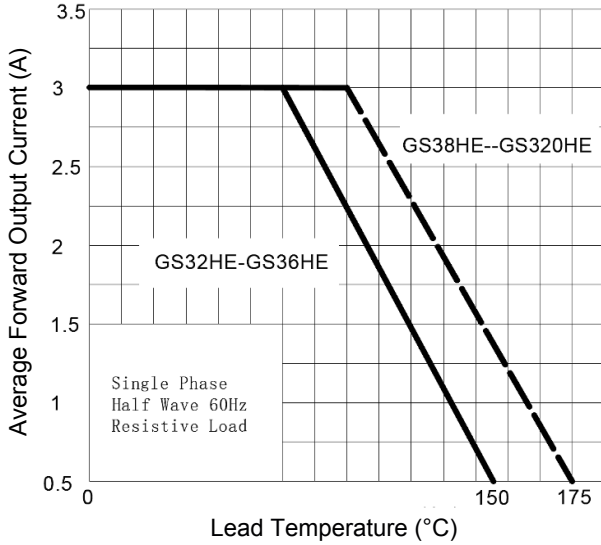


Figure 1. I_o - T_L Curve

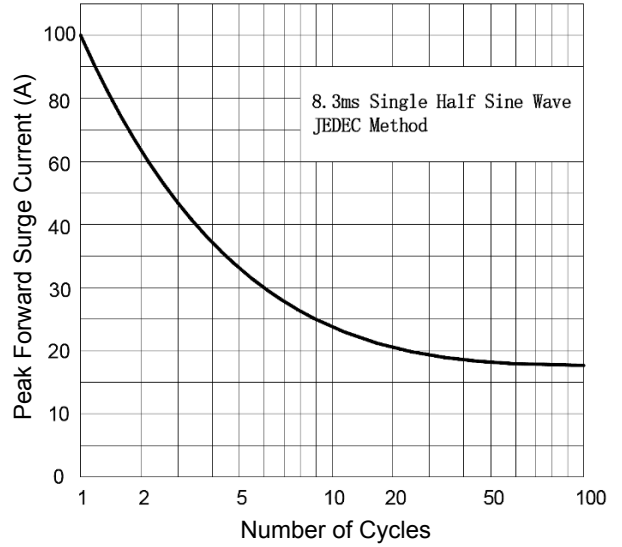


Figure 2. Surge Forward Current Capability

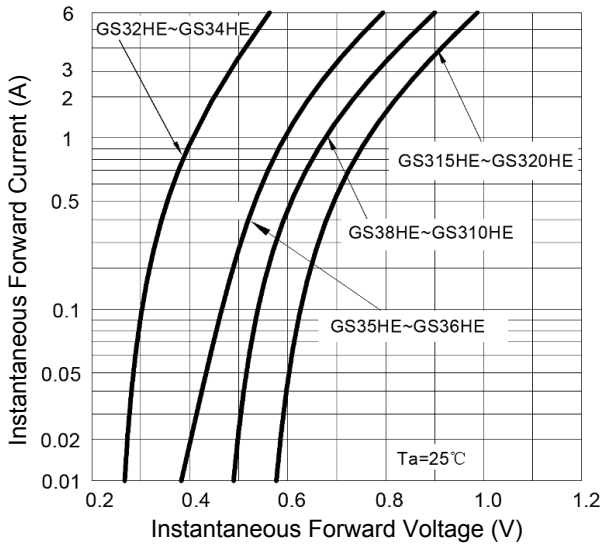


Figure 3. Forward Voltage

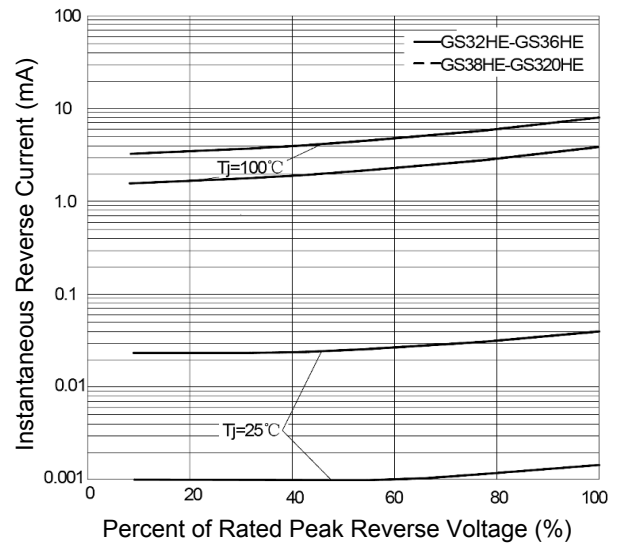
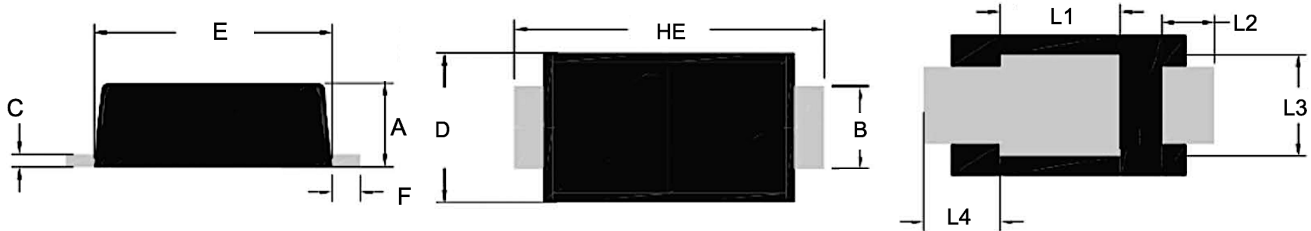


Figure 4. Typical Reverse Characteristics

GS32HE thru GS320HE

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V to 200V Forward Current 3.0A

Package Outline Dimensions (SOD-123HE)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.90 | 1.08 | 0.035 | 0.043 |
| B | 0.85 | 1.05 | 0.033 | 0.041 |
| C | 0.10 | 0.25 | 0.004 | 0.010 |
| D | 1.70 | 2.00 | 0.067 | 0.079 |
| E | 2.70 | 3.10 | 0.106 | 0.122 |
| F | 0.15 | 0.55 | 0.006 | 0.022 |
| L1 | 1.42 | 1.62 | 0.056 | 0.064 |
| L2 | 0.43 | 0.83 | 0.017 | 0.033 |
| L3 | 1.30 TYP | | 0.051 TYP | |
| L4 | 0.98 TYP | | 0.039 TYP | |
| HE | 3.50 | 3.90 | 0.138 | 0.154 |

Order Information

| Device | Package | Marking | Carrier | Quantity |
|---------|-----------|---------|-------------|------------------|
| GS32HE | SOD-123HE | 32H | Tape & Reel | 3,000 Pcs / Reel |
| GS33HE | SOD-123HE | 33H | Tape & Reel | 3,000 Pcs / Reel |
| GS34HE | SOD-123HE | 34H | Tape & Reel | 3,000 Pcs / Reel |
| GS35HE | SOD-123HE | 35H | Tape & Reel | 3,000 Pcs / Reel |
| GS36HE | SOD-123HE | 36H | Tape & Reel | 3,000 Pcs / Reel |
| GS38HE | SOD-123HE | 38H | Tape & Reel | 3,000 Pcs / Reel |
| GS310HE | SOD-123HE | 310H | Tape & Reel | 3,000 Pcs / Reel |
| GS315HE | SOD-123HE | 315H | Tape & Reel | 3,000 Pcs / Reel |
| GS320HE | SOD-123HE | 320H | Tape & Reel | 3,000 Pcs / Reel |

For more information, please contact us at: inquiry@goodarksemi.com