

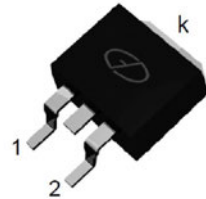
GSR1040D thru GSR10200D

Schottky Barrier Rectifiers

Reverse Voltage 40V to 200V Forward Current 10 A

Features

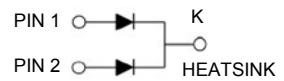
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction
- Low forward voltage, high efficiency
- Guarding for over voltage protection



Package: TO-263

Mechanical Data

- Case: epoxy, molded
- Weight: 1.4grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal leads readily solderable
- Lead temperature for soldering purpose: 260°C max. for 10 sec



Schematic Diagram

Maximum Ratings & Electrical Characteristics

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

| Parameters | Symbols | GSR 1040D | GSR 1045D | GSR 1060D | GSR 10100D | GSR 10150D | GSR 10200D | Units |
|--|---------------------------|-------------|-----------|-----------|------------|------------|------------|----------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 40 | 45 | 60 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | V_{RMS} | 28 | 32 | 42 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 45 | 60 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current ¹ | Per Leg | 5.0 | | | | | | A |
| | Total Device | 10.0 | | | | | | |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Jedec Method) | I_{FSM} | 150 | | | | | | A |
| Maximum Instantaneous Forward Voltage at 5.0 A Per Leg ¹ | V_F | 0.60 | 0.75 | 0.85 | 0.90 | 0.95 | | V |
| Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹ | $T_J=25^{\circ}\text{C}$ | 100 | | | 15 | | | μA |
| | $T_J=100^{\circ}\text{C}$ | 5 | | | - | | | mA |
| | $T_J=125^{\circ}\text{C}$ | - | | | 15 | | | |
| Typical Thermal Resistance ² | $R_{\theta JC}$ | 2.5 | | | | | | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range | T_J | -55 to +150 | | | | | | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | $^{\circ}\text{C}$ |

Notes:

- Pulse test: 300 μs pulse width, 1% duty cycle.
- Thermal resistance from junction to case.

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

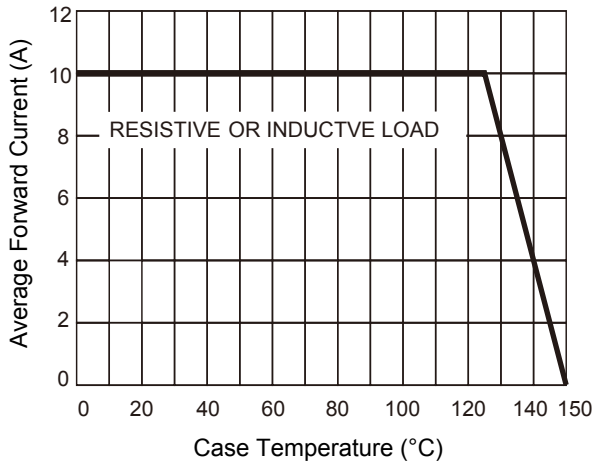


Figure 1. Forward Current Derating Curve

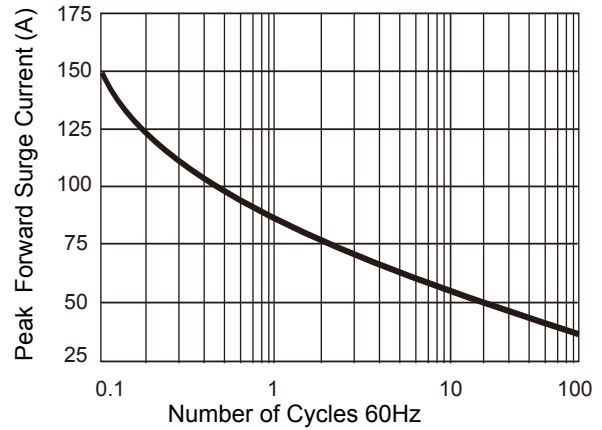


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

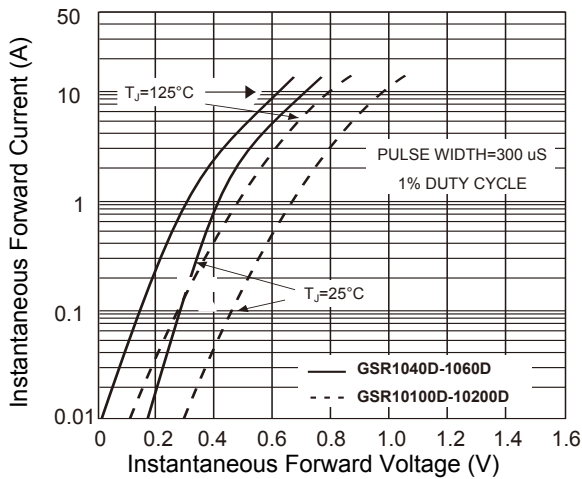


Figure 3. Typical Instantaneous Forward Characteristics

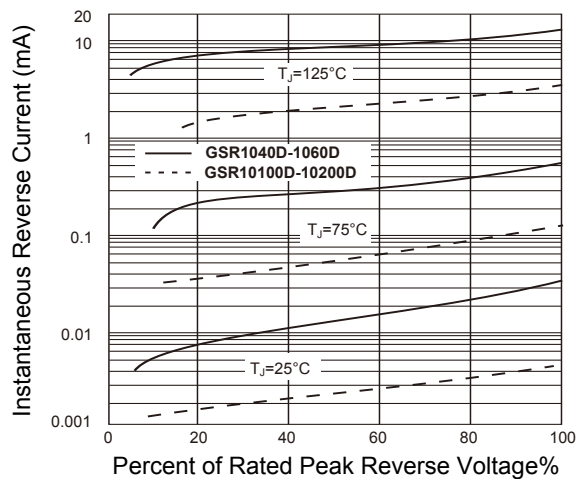


Figure 4. Typical Reverse Characteristics

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Package Outline Dimensions (TO-263)

in millimeters

