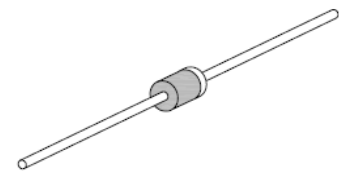


1.0A Sintered Glass Passivated Fast Recovery Rectifier (SGP[®])

Features

- Sintered glass passivated (SGP[®]) rectifier chip
- Capable of meeting environmental standards of MIL-S-19500
- For use in high frequency rectifier circuits
- Fast switching for high efficiency
- Typical IR less than 0.1µA
- High temperature soldering guaranteed: 260°C/10 seconds
.0375" (9.5mm) lead length, 5lbs (2.3kg) tension
- RoHS Compliance



**DO-41
(DO-204AL)**



Mechanical Data

| | |
|-------------------|---|
| Case: | JEDEC DO-204AL(DO-41) molded plastic body |
| Epoxy: | Plastic package has UL flammability classification 94V-0 |
| Terminals: | Plated axial leads, solderable per MIL-STD-750, Method 2026 |
| Polarity: | Color band denotes cathode end |
| Weight: | 0.012 ounces, 0.3 gram |

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

| Symbol | Description | RGP10Q | RGP10V | RGP10Y | RGP10MM | Unit | Conditions |
|---------------|---|--------|--------|--------|---------|------|---|
| VRRM | Maximum Repetitive Peak Reverse Voltage | 1200 | 1500 | 1800 | 2000 | V | |
| VRMS | Maximum RMS Voltage | 840 | 1050 | 1260 | 1400 | V | |
| VDC | Maximum DC Blocking Voltage | 1200 | 1500 | 1800 | 2000 | V | |
| IF(AV) | Maximum Average Forward Rectified Current | 1.0 | | | | A | 0.375" (9.5mm) lead length(Fig.1) |
| IFSM | Peak Forward Surge Current | 20 | | | | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) |

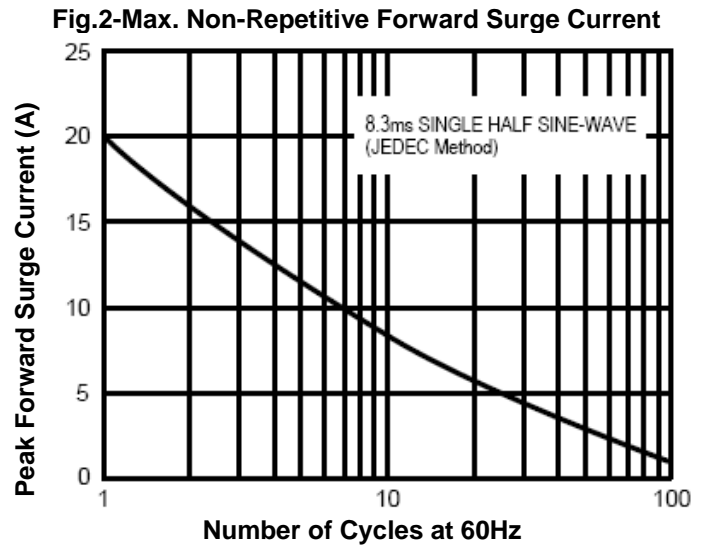
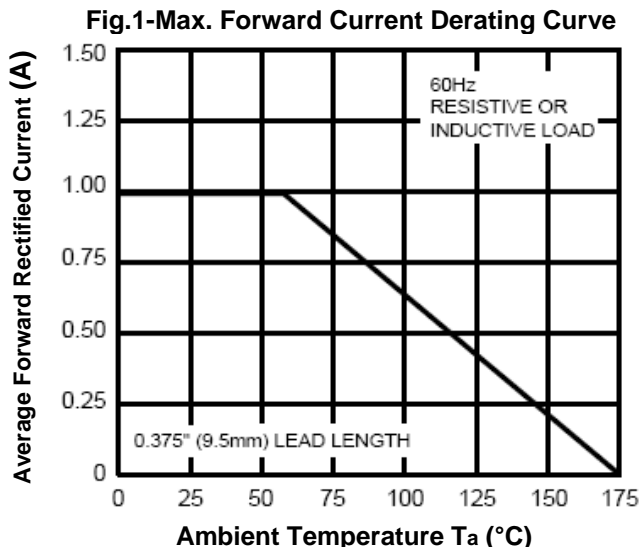
1.0A Sintered Glass Passivated Fast Recovery Rectifier (SGP[®])

RGP10Q - RGP10MM

| Symbol | Description | RGP10Q | RGP10V | RGP10Y | RGP10MM | Unit | Conditions |
|-------------------------|---|-------------|--------|--------|---------|--------|--|
| V_F | Maximum Instantaneous Forward Voltage | 1.8 | | | | V | I _F =1.0 A |
| I_R | Maximum DC Reverse Current at Rated DC Blocking Voltage | 5 | | | | μA | T _A =25° C |
| | | 30 | | | | | T _A =125° C |
| | | 50 | | | | | T _A =150° C |
| T_{rr} | Typical Reverse Recovery Time | 300 | | | | nS | I _F =0.5A, I _R =1A, I _{rr} =0.25A |
| C_J | Typical Junction Capacitance | 15 | | | | pF | V _R =4V, f=1MHz |
| R_{thJA} | Typical Thermal Resistance | 55 | | | | °C / W | Note |
| T_J | Operating Temperature range | -65 to +175 | | | | °C | |
| T_{STG} | Storage Temperature Range | -65 to +175 | | | | | |

Note: Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B mounted.

Typical Characteristics Curves



1.0A Sintered Glass Passivated Fast Recovery Rectifier (SGP[®])

RGP10Q - RGP10MM

Fig.3- Typical Forward Characteristics

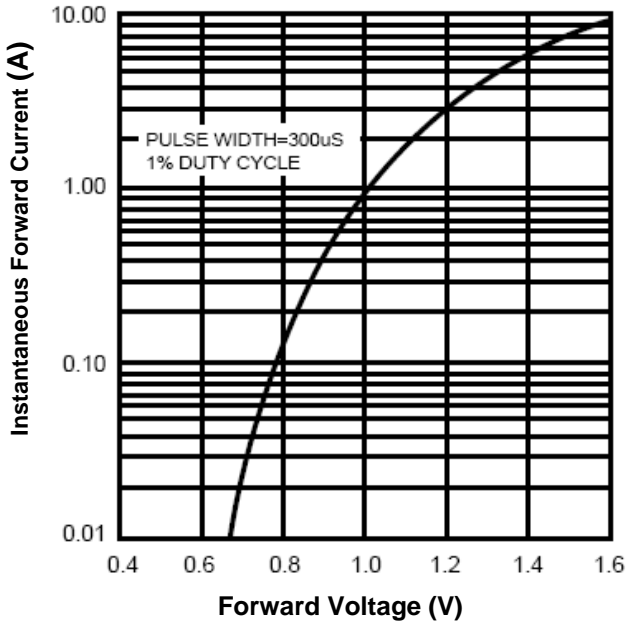


Fig.4-Typical Reverse Characteristics

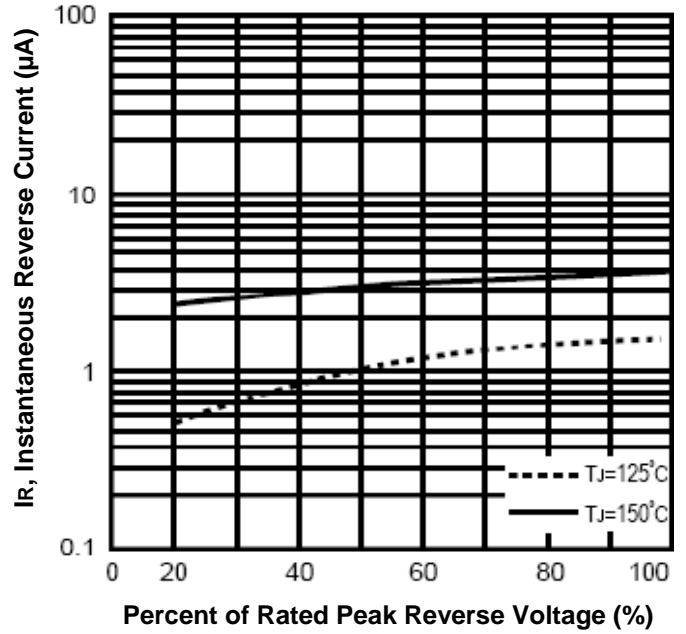
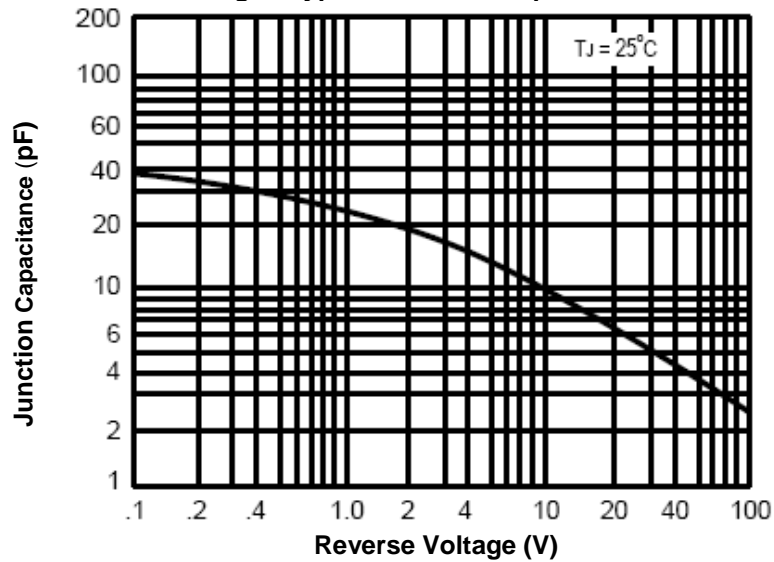


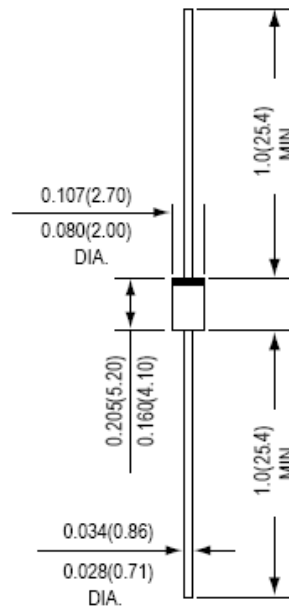
Fig.5- Typical Junction Capacitance



1.0A Sintered Glass Passivated Fast Recovery Rectifier (SGP[®])

RGP10Q - RGP10MM

Dimensions in inches (mm)



DO-41
(DO-204AL)

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