

# PG100RS~PG106RS

## GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 600 Volts **CURRENT** 1.0 Amperes

**A-405**

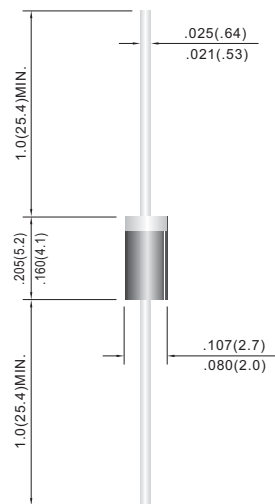
Unit: inch(mm)

### FEATURES

- High current capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low leakage.
- Fast switching for high efficiency.
- Exceeds environmental standards of MIL-S-19500/228
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, A-405
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.008 ounce, 0.22 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

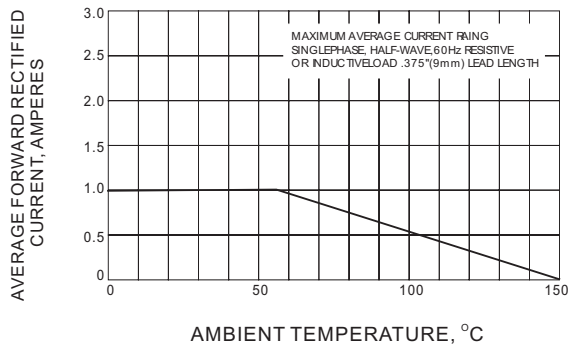
Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER                                                                                          | SYMBOL          | PG100RS     | PG101RS | PG102RS | PG104RS | PG106RS | UNITS           |
|----------------------------------------------------------------------------------------------------|-----------------|-------------|---------|---------|---------|---------|-----------------|
| Maximum Recurrent Peak Reverse Voltage                                                             | $V_{RRM}$       | 50          | 100     | 200     | 400     | 600     | V               |
| Maximum RMS Voltage                                                                                | $V_{RMS}$       | 35          | 70      | 140     | 280     | 420     | V               |
| Maximum DC Blocking Voltage                                                                        | $V_{DC}$        | 50          | 100     | 200     | 400     | 600     | V               |
| Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^{\circ}C$                      | $I_{F(AV)}$     | 1.0         |         |         |         |         | A               |
| Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load(JEDEC method) | $I_{FSM}$       | 30          |         |         |         |         | A               |
| Maximum Forward Voltage at 1.0A                                                                    | $V_F$           | 1.3         |         |         |         |         | V               |
| Maximum DC Reverse Current $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=100^{\circ}C$       | $I_R$           | 1.0<br>150  |         |         |         |         | $\mu A$         |
| Typical Junction capacitance (Note 1)                                                              | $C_J$           | 12          |         |         |         |         | pF              |
| Maximum Reverse Recovery Time                                                                      | $t_{rr}$        | 150         |         |         |         | 250     | ns              |
| Typical Thermal Resistance                                                                         | $R_{\theta JA}$ | 67          |         |         |         |         | $^{\circ}C / W$ |
| Operating Junction and Storage Temperature Range                                                   | $T_J, T_{STG}$  | -55 to +150 |         |         |         |         | $^{\circ}C$     |

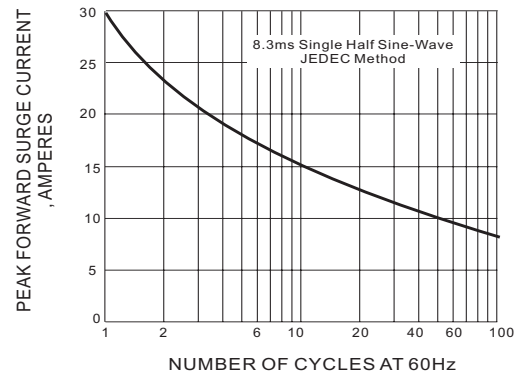
NOTES:1. Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$   
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC  
3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

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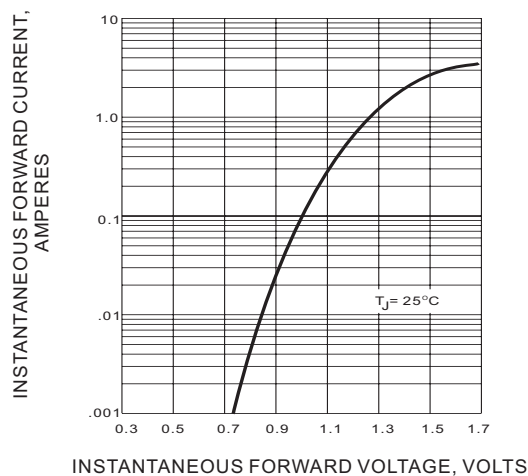
## RATING AND CHARACTERISTIC CURVES



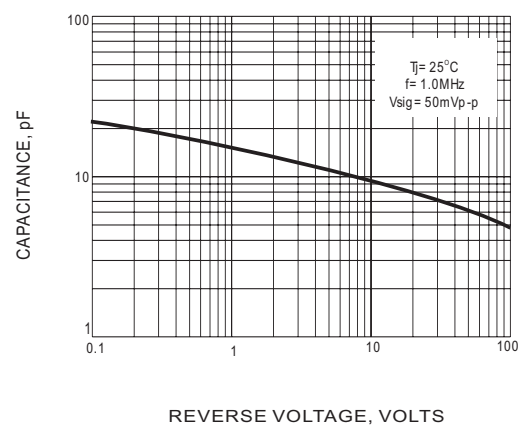
**Fig.1 FORWARD CURRENT DERATING CURVE**



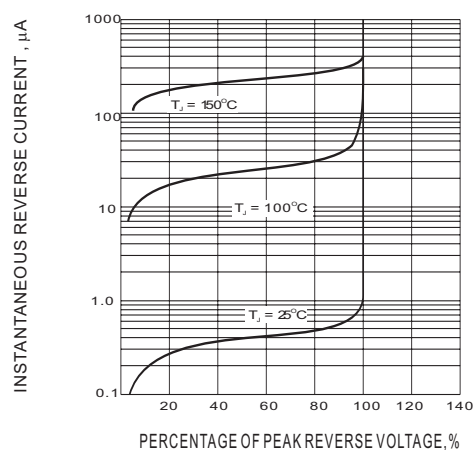
**Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.4 TYPICAL JUNCTION CAPACITANCE**



**Fig.5-TYPICAL REVERSE CHARACTERISTIC**