

## RGP02-12E // 20E

**PRV : 1200 - 2000 Volts**

**Io : 0.5 Ampere**

### FEATURES :

- \* Glass passivated junction
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202,  
Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.339 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| RATING                                                                                                | SYMBOL             | RGP<br>02-12  | RGP<br>02-14 | RGP<br>02-16 | RGP<br>02-18 | RGP<br>02-20 | UNITS |
|-------------------------------------------------------------------------------------------------------|--------------------|---------------|--------------|--------------|--------------|--------------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | V <sub>RRM</sub>   | 1200          | 1400         | 1600         | 1800         | 2000         | Volts |
| Maximum RMS Voltage                                                                                   | V <sub>RMS</sub>   | 840           | 980          | 1120         | 1260         | 1400         | Volts |
| Maximum DC Blocking Voltage                                                                           | V <sub>DC</sub>    | 1200          | 1400         | 1600         | 1800         | 2000         | Volts |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length Ta = 55 °C                               | I <sub>F(AV)</sub> | 0.5           |              |              |              |              | Amps. |
| Peak Forward Surge Current 8.3 ms. Single half sine wave<br>Superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>   | 20            |              |              |              |              | Amps. |
| Maximum Peak Forward Voltage at 0.5 Amp.                                                              | V <sub>F</sub>     | 2.5           |              |              |              |              | Volts |
| Maximum DC Reverse Current Ta = 25 °C                                                                 | I <sub>R</sub>     | 5.0           |              |              |              |              | μA    |
| at Rated DC Blocking Voltage Ta = 100 °C                                                              | I <sub>R(H)</sub>  | 50            |              |              |              |              | μA    |
| Maximum Reverse Recovery Time ( Note 1 )                                                              | T <sub>rr</sub>    | 300           |              |              |              |              | ns    |
| Typical Junction Capacitance ( Note 2 )                                                               | C <sub>J</sub>     | 5.0           |              |              |              |              | pf    |
| Junction Temperature Range                                                                            | T <sub>J</sub>     | - 65 to + 150 |              |              |              |              | °C    |
| Storage Temperature Range                                                                             | T <sub>STG</sub>   | - 65 to + 150 |              |              |              |              | °C    |

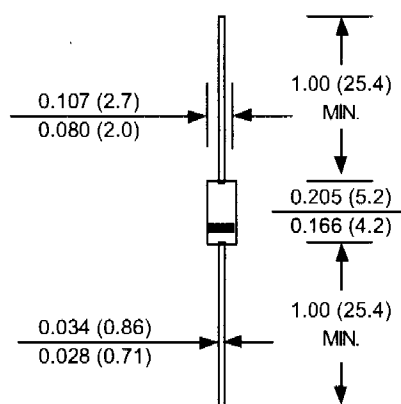
#### Notes :

- ( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>

**Quality Semi-Conductors**

## HIGH VOLTAGE FAST RECOVERY RECTIFIERS

### DO - 41



Dimensions in inches and ( millimeters )