# PR2004G-PR2007G(LS)

## FAST RECOVERY GLASS PASSIVATED RECTIFIERS

## REVERSE VOLTAGE – 400 to 1000 Volts FORWARD CURRENT – 2.0 Amperes

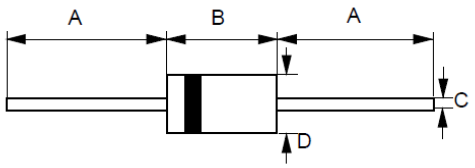
### FEATURES

- Fast switching for high efficiency
- Glass passivated chip
- Low reverse leakage current
- Low forward voltage drop.
- High current capability
- Plastic material has UL flammability classification 94V-0
- Available in "Green" Package: DO-15
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

### MECHANICAL DATA

- Package: JEDEC DO-15 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.4 grams
- Mounting position: Any

### DO-15




| DO-15 | | |
|---|---|---|
| Dim | Min. | Max. |
| A | 25.4 | -- |
| B | 5.80 | 7.60 |
| C | 0.71ø | 0.86ø |
| D | 2.60ø | 3.60ø |
| All Dimensions in millimeter | | |

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER | | SYMBOL | PR2004G | PR2005G | PR2006G | PR2007G | UNIT |
|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | | $V_{RRM}$ | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | | $V_{RMS}$ | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | $@T_A$=55°C | $I_{(AV)}$ | 2.0 | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load | | $I_{FSM}$ | 80 | | | | A |
| Maximum Forward Voltage at 2.0A DC | | $V_F$ | 1.3 | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $@T_J$=25°C<br>$@T_J$=125°C | $I_R$ | 5.0<br>100 | | | | uA |
| Typical Junction Capacitance (Note 4) | | $C_T$ | 35 | | | | pF |
| Typical Thermal Resistance (Note 5) | | $R_{thJA}$<br>$R_{thJL}$<br>$R_{thJC}$ | 40<br>18<br>15 | | | | °C/W |
| Maximum Reverse Recovery Time (Note 6) | | $t_{rr}$ | 150 | 250 | 500 | | ns |
| Operating Temperature Range | | $T_J$ | -55 to +150 | | | | °C |
| Storage Temperature Range | | $T_{STG}$ | -55 to +150 | | | | °C |

**Note:**

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal Resistance Junction to Ambient, Lead and Case.
6. Reverse Recovery Test Conditions: $I_F$=0.5A,$I_R$=1A,$I_{rr}$=0.25A.


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## RATING AND CHARACTERISTIC CURVES
## PR2004G-PR2007G(LS)

FIG.1 - FORWARD CURRENT DERATING CURVE

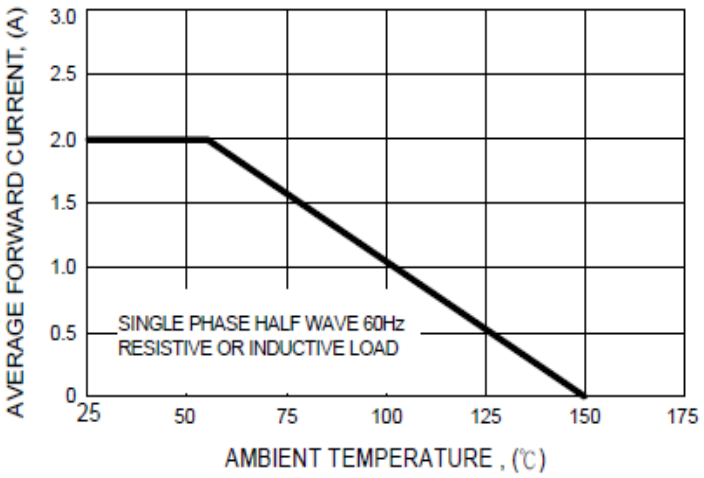



FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

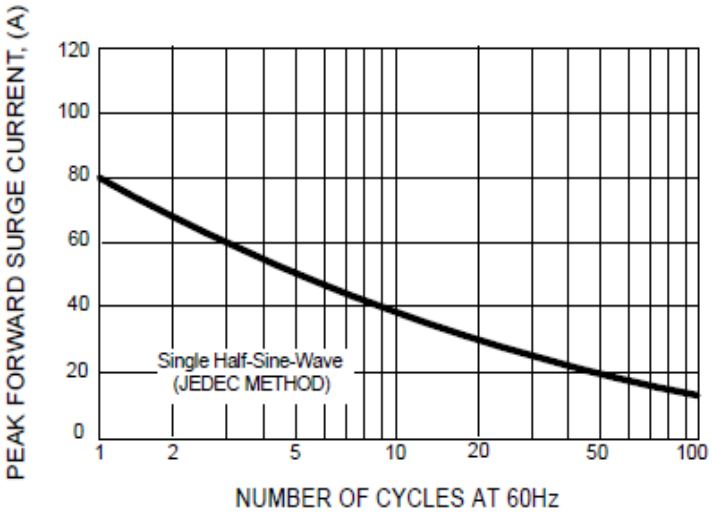



FIG.3 - TYPICAL JUNCTION CAPACITANCE

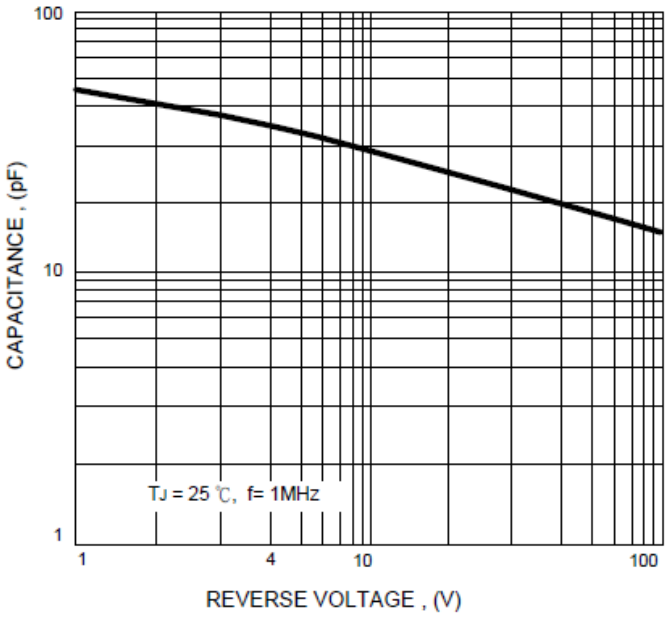
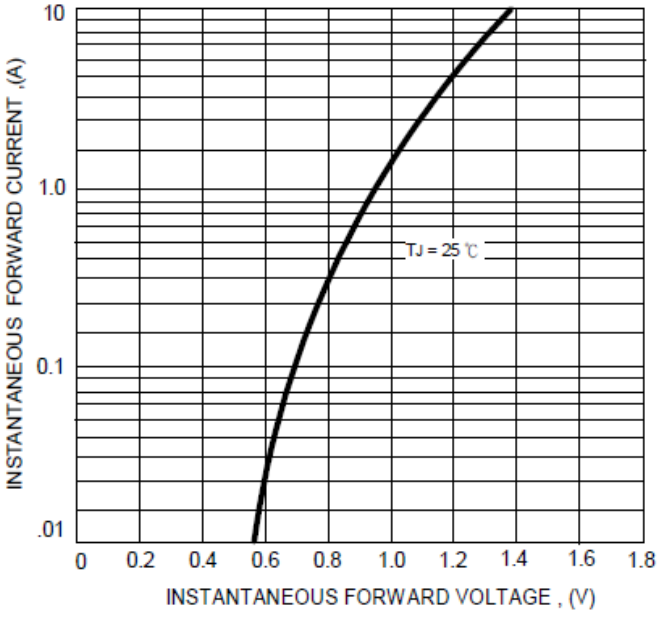



FIG.4 - TYPICAL FORWARD CHARACTERISTICS



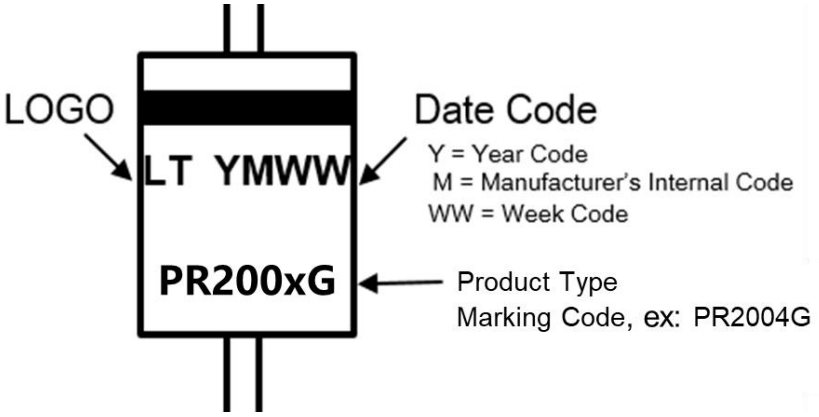


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## Ordering Information :

| Part Number | Package | Packing | |
|---|---|---|---|
| | | Qty. | Carrier |
| PR2004G_HF | DO-15 | 4000 | REEL |
| PR2005G_HF | DO-15 | 4000 | REEL |
| PR2007G_HF | DO-15 | 4000 | REEL |
| PR2005G_HF-A52 | DO-15 | 2000 | AMMO52 |
| PR2006G_HF-A52 | DO-15 | 2000 | AMMO52 |

## Marking Information :





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