Compact Technology

# PR1001G thru PR1007G

**FAST RECOVERY RECTIFIERS**

**GLASS PASSIVATION JUNCTION**

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 1.0** Amperes

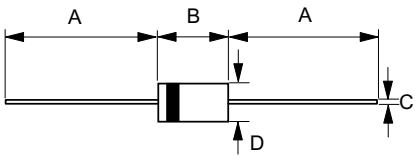
## FEATURES

- Fast switching for high efficiency
- Low cost
- Glass passivation junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

## MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

**DO-41**




| | DO-41 | |
|---|---|---|
| Dim. | Min. | Max. |
| A | 25.4 | - |
| B | 4.20 | 5.20 |
| C | 0.70 ∅ | 0.90 ∅ |
| D | 2.00 ∅ | 2.70 ∅ |
| All Dimensions in millimeter | | |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | PR 1001G | PR 1002G | PR 1003G | PR 1004G | PR 1005G | PR 1006G | PR 1007G | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current | $I_F$ | 1.0 | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superim posed on rated load | $I_{FSM}$ | 30.0 | | | | | | | A |
| Maximum instantaneous $I_{F=1A@25°C}$ | $V_F$ | 1.30 | | | | | | | V |
| Maximum DC Reverse Current @TA=25°C<br>at Rated DC Blocking Voltage @TA=100°C | $I_R$ | 5<br>100 | | | | | | | uA |
| Maximum Reverse Recovery Time | Trr | 150 | | | | 250 | 500 | | nS |
| Typical Junction Capacitance | $C_J$ | 15 | | | | | | | pF |
| Operating Temperature Range | $T_J$ | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | °C |

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

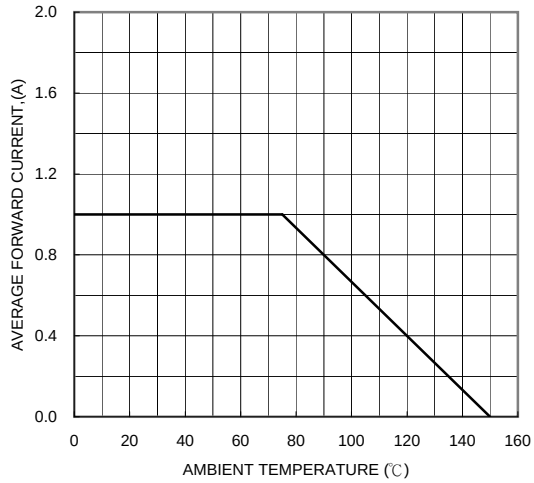



FIG. 2-TYPICAL FORWARD CHARACTERISTICS

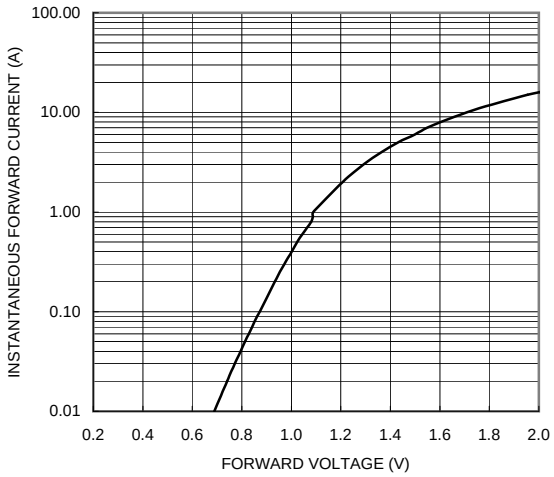



FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

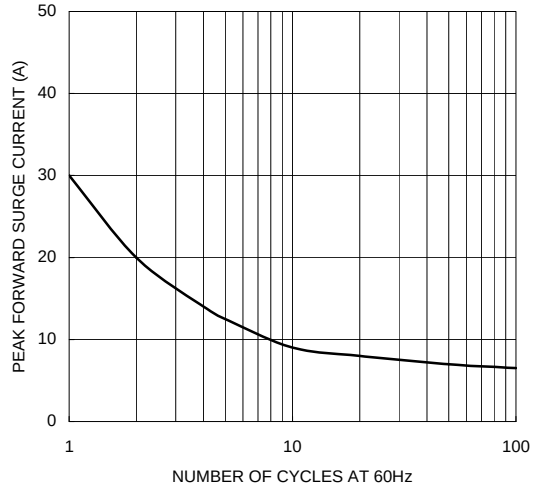



FIG. 4-TYPICAL REVERSE CHARACTERISTICS

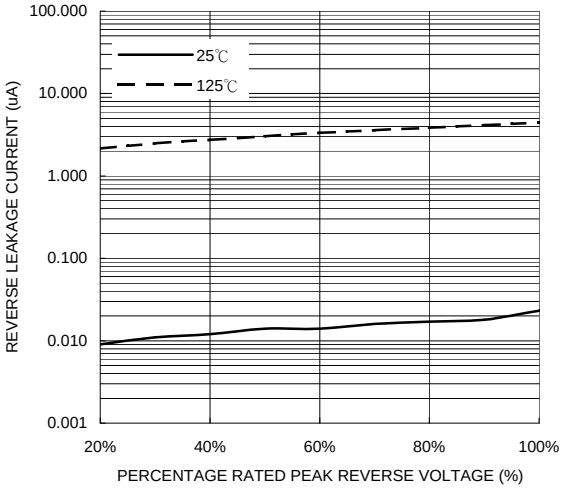



FIG. 5-TYPICAL JUNCTION CAPACITANCE

