LITE-ON SEMICONDUCTOR

# PR1001GL thru PR1007GL

**FAST RECOVERY**
**GLASS PASSIVATED RECTIFIERS**

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

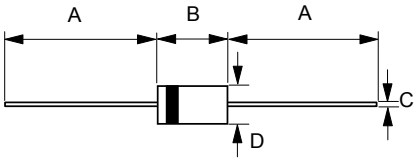
## FEATURES

- 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

## MECHANICAL DATA

- Case : JEDEC A-405 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.008 ounces, 0.22 grams
- Mounting position : Any

**A-405**




| | A-405 | |
|---|---|---|
| Dim. | Min. | Max. |
| A | 25.4 | - |
| B | 4.10 | 5.20 |
| C | 0.53 ∅ | 0.64 ∅ |
| D | 2.00 ∅ | 2.70 ∅ |
| All Dimensions in millimeter | | |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

| CHARACTERISTICS | SYMBOL | PR 1001GL | PR 1002GL | PR 1003GL | PR 1004GL | PR 1005GL | PR 1006GL | PR 1007GL | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current @$T_A$ =55℃ | I (AV) | 1.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load | $I_{FSM}$ | 30 | | | | | | | A |
| Maximum forward Voltage at 1.0A DC | $V_F$ | 1.3 | | | | | | | V |
| Maximum DC Reverse Current @$T_J$ =25℃ at Rated DC Blocking Voltage @$T_J$ =100℃ | $I_R$ | 5.0<br>50 | | | | | | | uA<br>uA |
| Typical Junction Capacitance (Note1) | $C_J$ | 15 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 50 | | | | | | | ℃/W |
| Typical Reverse Recovery Time (note 3) | $T_{RR}$ | 150 | | | | 250 | 500 | | ns |
| Operating Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2.Thermal Resistance Junction to Ambient.
3. Reverse Recovery Test conditions: $I_F$=0.5A, $I_R$=1A, $I_{RR}$=0.25A.

REV. 3, Oct-2010, KDEB02

FIG.1 - FORWARD CURRENT DERATING CURVE

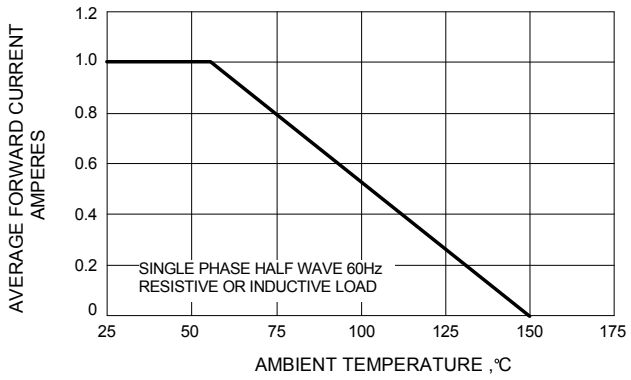



FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

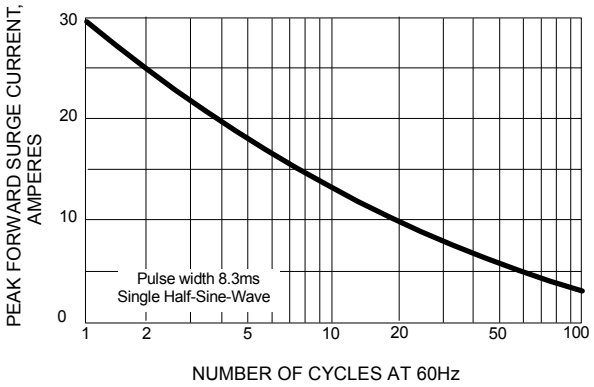



FIG.3 - TYPICAL JUNCTION CAPACITANCE

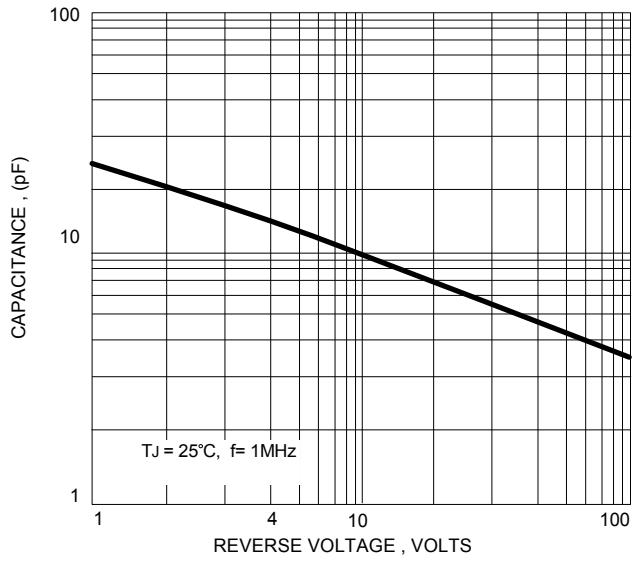
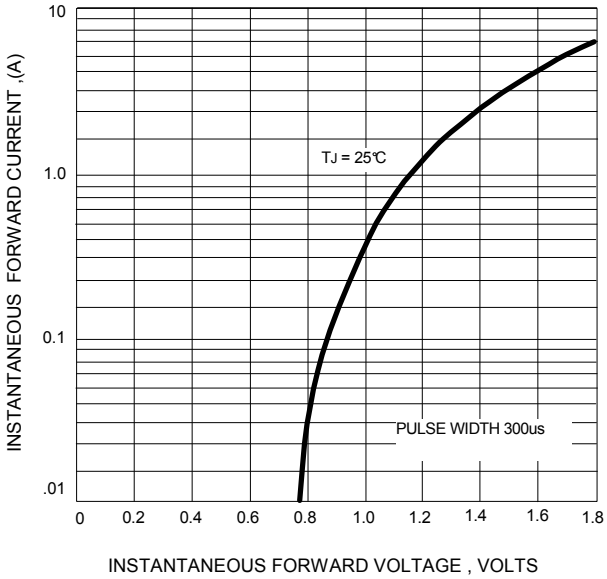



FIG.4 - TYPICAL FORWARD CHARACTERISTICS



## Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.