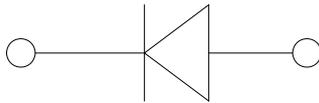
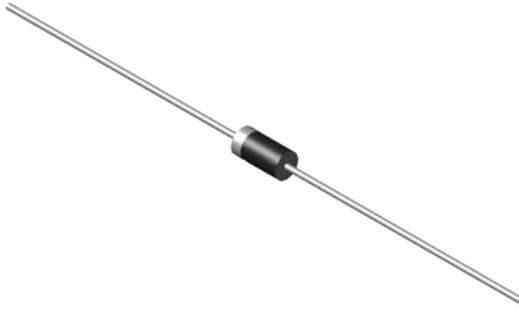




## General Purpose Rectifier



### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Mechanical Data

- **Package:** A-405  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER  | SYMBOL | UNIT | 1N4001GS   | 1N4002GS | 1N4003GS | 1N4004GS | 1N4005GS | 1N4006GS | 1N4007GS |
|--|--------|------|------------|----------|----------|----------|----------|----------|----------|
| Device marking code  |        |      | 1N4001GS   | 1N4002GS | 1N4003GS | 1N4004GS | 1N4005GS | 1N4006GS | 1N4007GS |
| Maximum Repetitive Peak Reverse Voltage  | VRRM   | V    | 50         | 100      | 200      | 400      | 600      | 800      | 1000     |
| Maximum RMS Voltage  | VRMS   | V    | 35         | 70       | 140      | 280      | 420      | 560      | 700      |
| Maximum DC blocking Voltage  | VDC    | V    | 50         | 100      | 200      | 400      | 600      | 800      | 1000     |
| Average Forward Current<br>@60Hz sine wave, Resistance load, Ta=75°C                       | IF(AV) | A    | 1.0        |          |          |          |          |          |          |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, Tj=25°C           | IFSM   | A    | 30         |          |          |          |          |          |          |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, Tj=25°C              |        |      | 60         |          |          |          |          |          |          |
| Current squared time<br>@1ms≤t≤8.3ms Tj=25°C, Rating of per diode                          | I²t    | A²s  | 3.735      |          |          |          |          |          |          |
| Typical junction capacitance<br>@Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | Cj     | pF   | 6          |          |          |          |          |          |          |
| Storage Temperature  | Tstg   | °C   | -55 ~ +150 |          |          |          |          |          |          |
| Junction Temperature   | Tj     | °C   | -55 ~ +150 |          |          |          |          |          |          |

### ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL | UNIT | TEST CONDITIONS | 1N4001GS | 1N4002GS | 1N4003GS | 1N4004GS | 1N4005GS | 1N4006GS | 1N4007GS |
|---|--------|------|-----------------|----------|----------|----------|----------|----------|----------|----------|
| Maximum instantaneous forward voltage drop per diode              | VF     | V    | IFM=1.0A        | 1.1      |          |          |          |          |          |          |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR     | µA   | Tj=25°C         | 2.5      |          |          |          |          |          |          |
|   |        |      | Tj=125°C        | 50       |          |          |          |          |          |          |



# 1N4001GS THRU 1N4007GS

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                  | SYMBOL            | UNIT | 1N4001GS | 1N4002GS | 1N4003GS | 1N4004GS | 1N4005GS | 1N4006GS | 1N4007GS |
|----------------------------|-------------------|------|----------|----------|----------|----------|----------|----------|----------|
| Typical Thermal Resistance | R <sub>θJ-A</sub> | °C/W | 65       |          |          |          |          |          |          |

## ■ Ordering Information (Example)

| PREFERRED P/N       | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4001GS ~ 1N4007GS | D1           | Approximate 0.22 | Approximate 5000     | 5000                    | 50000                      | Tape          |
| 1N4001GS ~ 1N4007GS | C1           | Approximate 0.22 | Approximate 1000     | 1000                    | 50000                      | Bulk          |

## ■ Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

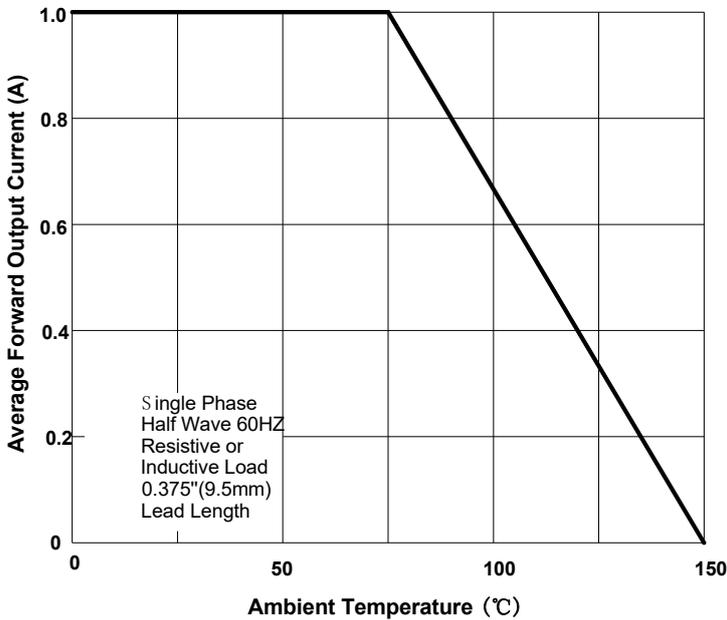


FIG.2: Surge Forward Current Capability

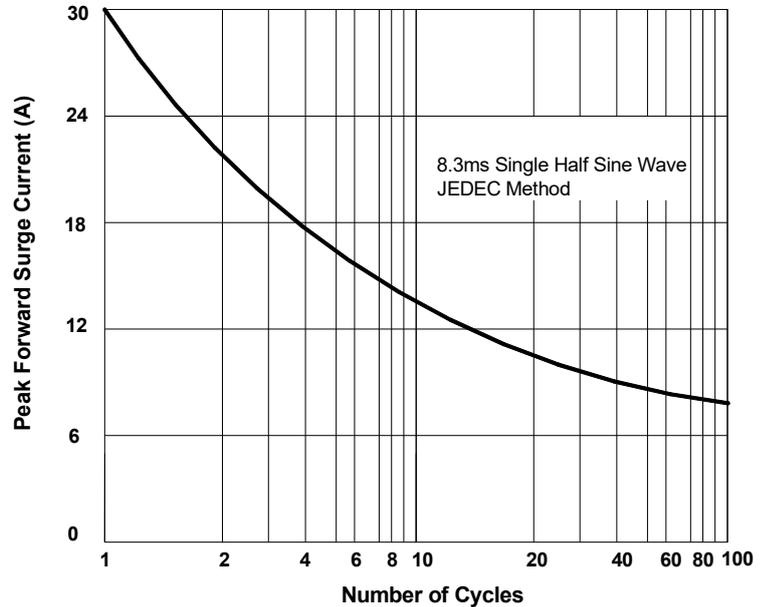


FIG.3: Forward Voltage

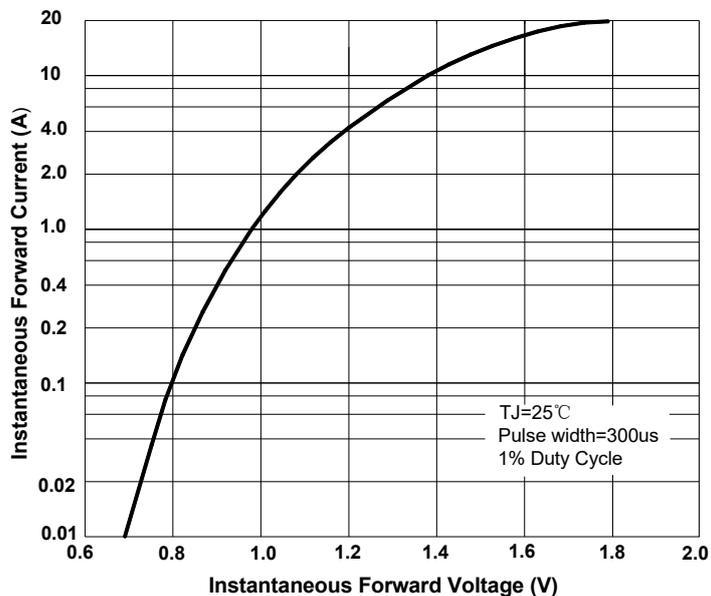
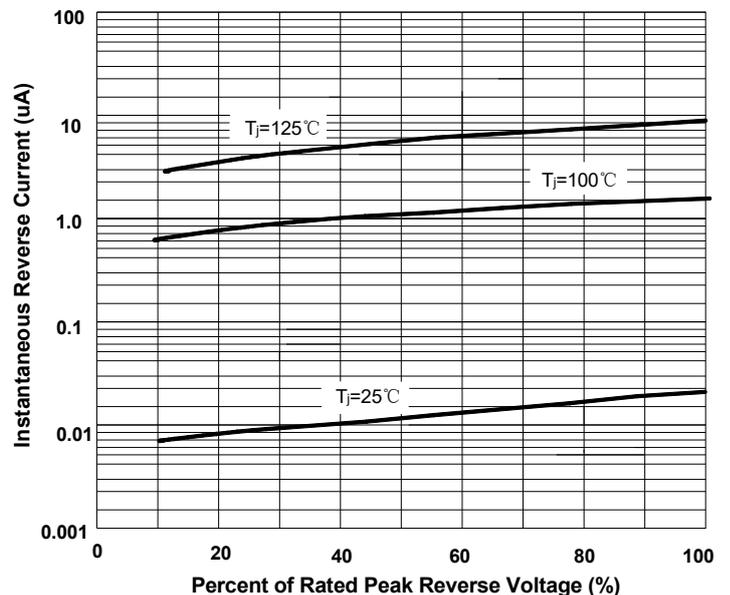


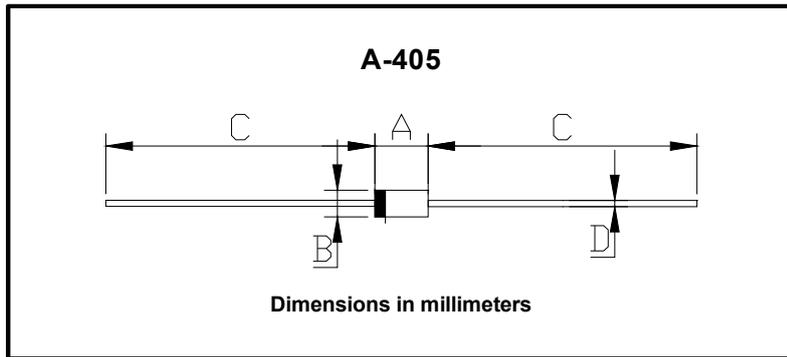
FIG.4: Typical Reverse Characteristics





# 1N4001GS THRU 1N4007GS

## ■ Outline Dimensions



| <b>A-405</b> |      |      |
|--------------|------|------|
| Dim          | Min  | Max  |
| A            | 4.22 | 5.21 |
| B            | 2.03 | 2.72 |
| C            | 25.4 | /    |
| D            | 0.53 | 0.64 |



## 1N4001GS THRU 1N4007GS

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