



# 1N4007G

## GLASS PASSIVATED JUNCTION PLASTIC RECTIFIERS

**Voltage**

**1000 V**

**Current**

**1 A**

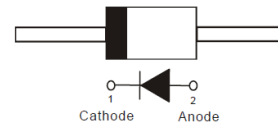
### Features

- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- Plastic package has underwriters laboratory flammability classification 94V-O
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: DO-41 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.009 ounces, 0.27 grams

DO-41



## Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER   | SYMBOL                | LIMIT   | UNITS              |
|---|-----------------------|---------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$             | 1000    | V                  |
| Maximum Rms Voltage   | $V_{RMS}$             | 700     | V                  |
| Maximum Dc Blocking Voltage   | $V_{DC}$              | 1000    | V                  |
| Maximum Average Forward Current   | $I_{F(AV)}$           | 1       | A                  |
| Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | $I_{FSM}$             | 30      | A                  |
| Typical Junction Capacitance<br>Measured at 1 MHz And Applied $V_R = 4\text{ V}$    | $C_J$                 | 5       | pF                 |
| Typical Thermal Resistance  | $R_{\theta JA}^{(1)}$ | 80      | $^\circ\text{C/W}$ |
|   | $R_{\theta JC}^{(2)}$ | 23      |                    |
| Operating Junction Temperature Range  | $T_J$                 | -55~150 | $^\circ\text{C}$   |
| Storage Temperature Range   | $T_{STG}$             | -55~150 | $^\circ\text{C}$   |



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## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER       | SYMBOL | TEST CONDITION                                 | MIN. | TYP. | MAX. | UNITS |
|-----------------|--------|--|------|------|------|-------|
| Forward Voltage | $V_F$  | $I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$   | -    | 0.9  | -    | V     |
|                 |        | $I_F = 1\text{ A}, T_J = 25^\circ\text{C}$     | -    | -    | 1.1  |       |
|                 |        | $I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$  | -    | 0.78 | -    |       |
|                 |        | $I_F = 1\text{ A}, T_J = 125^\circ\text{C}$    | -    | 0.85 | -    |       |
| Reverse Current | $I_R$  | $V_R = 1000\text{ V}, T_J = 25^\circ\text{C}$  | -    | -    | 5    | uA    |
|                 |        | $V_R = 1000\text{ V}, T_J = 125^\circ\text{C}$ | -    | 5    | -    |       |

**NOTES:**

1. The testing condition of the thermal resistance (junction to ambient) is based on 10 mm lead length between mini copper pad
2. The testing condition of the thermal resistance (junction to case) is based on 10 mm lead length between two 10 cm x 10cm copper pad



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## TYPICAL CHARACTERISTIC CURVES

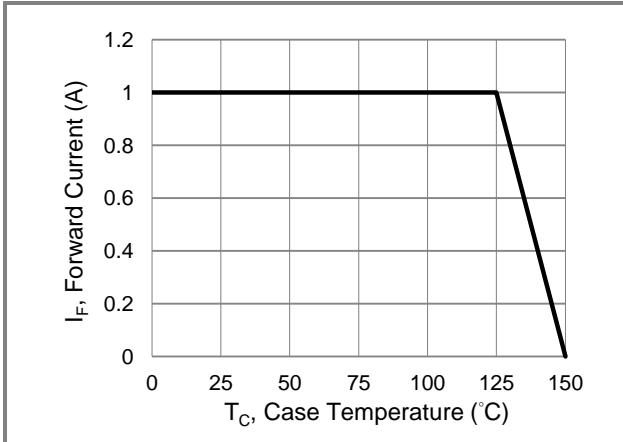


Fig.1 Forward Current Derating Curve

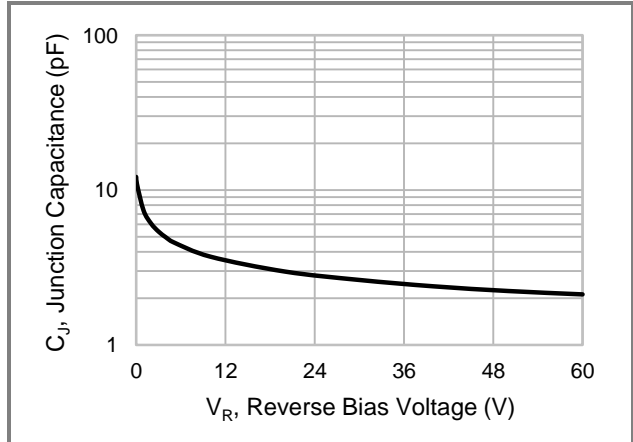


Fig.2 Typical Junction Capacitance

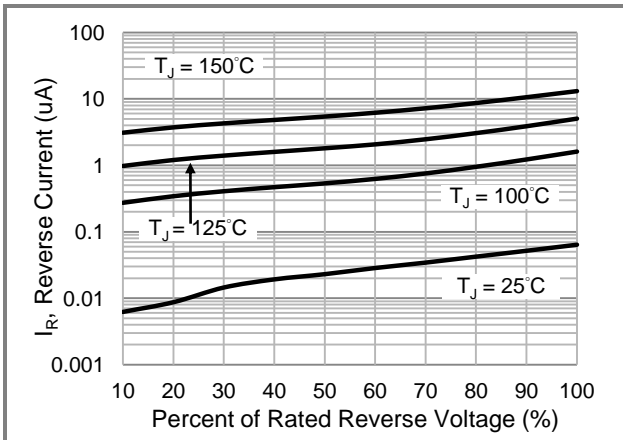


Fig.3 Typical Reverse Characteristics

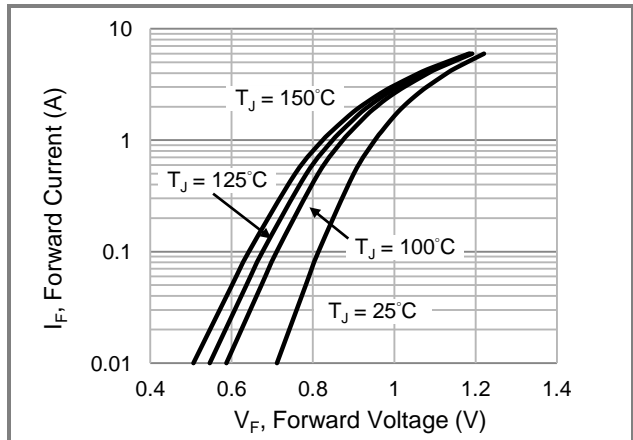


Fig.4 Typical Forward Characteristics

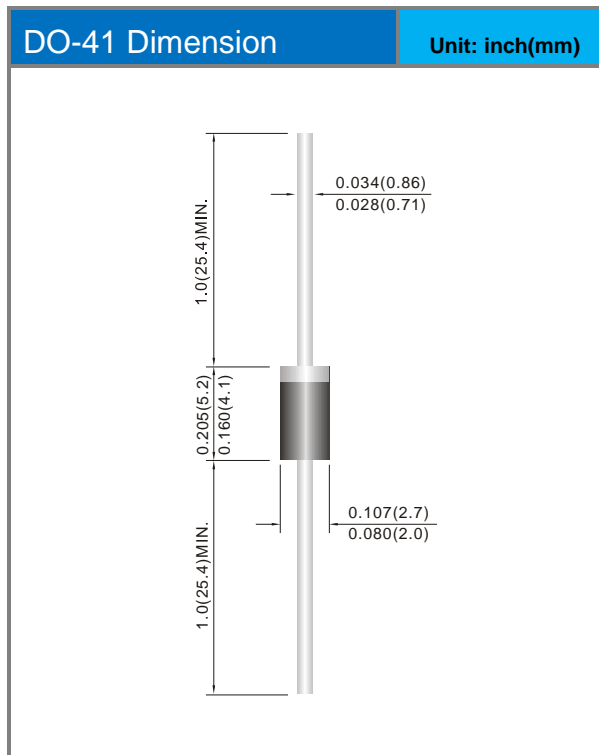


# 1N4007G

## Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type  | Marking | Version      |
|----------------------|--------------|---------------|---------|--------------|
| 1N4007G_AY_00001     | DO-41        | 5K pcs / Ammo | 1N4007G | Halogen free |

## Packaging Information & Mounting Pad Layout





## 1N4007G

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