



1N4007Z

Glass Passivated Standard Rectifier

Features

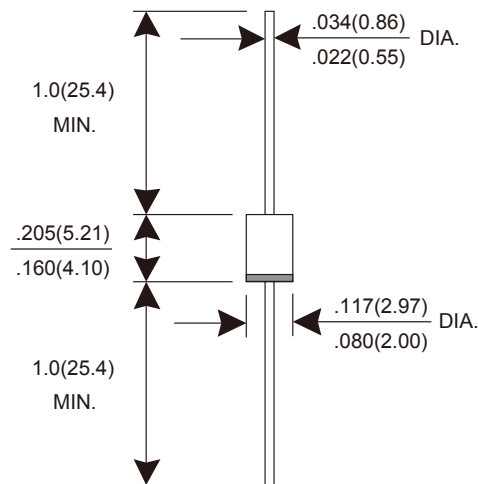
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Mechanical Data

- * Case: Molded plastic, DO-41
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202, method 208
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

**Voltage 2000 Volt
Current 1.0 Ampere**

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| PARAMETER | SYMBOL | VALUE | UNIT |
|--------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 2000 | V |
| Maximum RMS voltage | V _{RMS} | 1400 | V |
| Maximum DC blocking voltage | V _{DC} | 2000 | V |
| Maximum average forward rectified current @ T _A =50°C | I _{F(AV)} | 1.0 | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 30 | A |
| Maximum instantaneous forward voltage @ I _F =1.0A | V _F | 1.3 | V |
| Maximum DC reverse current at rated DC blocking voltage @ T _A =25°C @ T _A =100°C | I _R | 5 200 | μA |
| Typical thermal resistance from junction to ambient | R _{θJA} | 50 | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +150 | °C |

RATINGS AND CHARACTERISTICS CURVES

Fig.1 - Forward Current Derating Curve

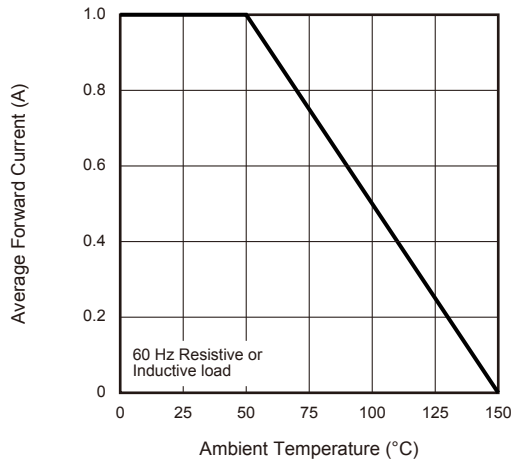


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

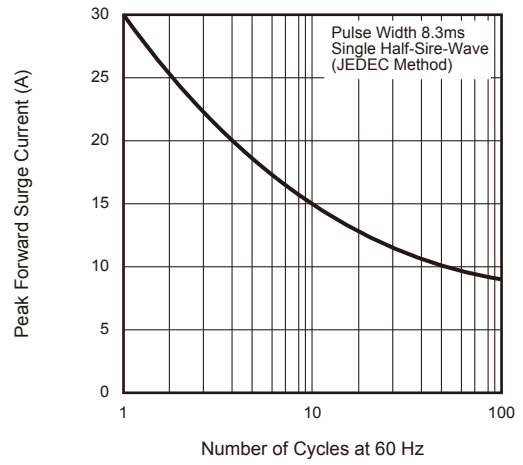


Fig.3 - Typical Instantaneous Forward Characteristics

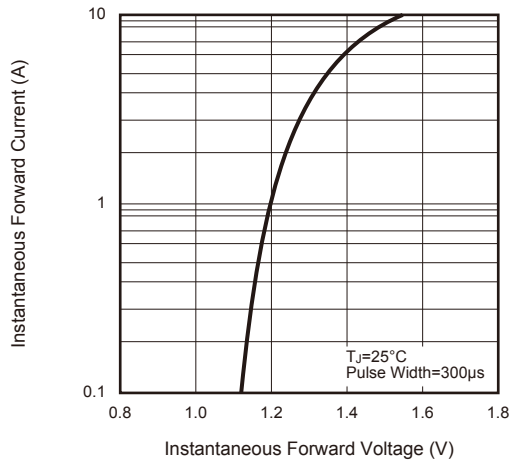
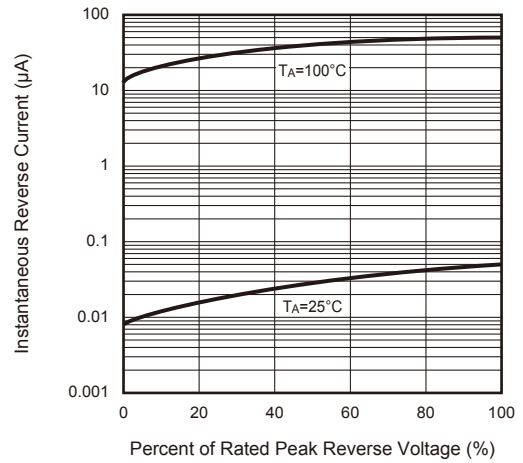


Fig.4 - Typical Reverse Leakage Characteristics



ORDERING INFORMATION

| Part Number | Marking Code | Package | Quantity | Delivery Mode |
|-------------|--------------|---------|----------|-----------------|
| 1N4007Z | 1N4007Z | DO-41 | 5,000 | Tape & Ammo box |
| 1N4007Z | 1N4007Z | DO-41 | 5,000 | Tape & Reel |