

Data Sheet 2567, Rev. -

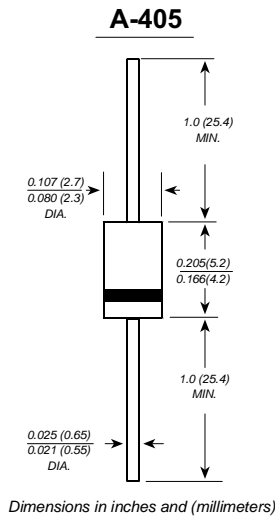
**1N4001S THRU 1N4007S**  
**GENERAL PURPOSE SILICON RECTIFIER**

**Reverse Voltage - 50 to 1000 Volts    Forward Current - 1.0 Ampere**

**FEATURES**

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**MECHANICAL DATA**



**Case:** A-405 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.008 ounce, 0.23 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

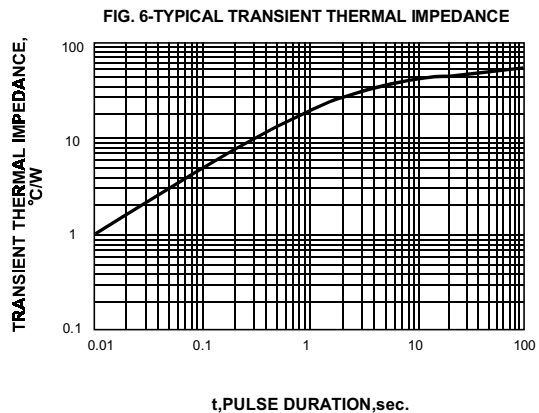
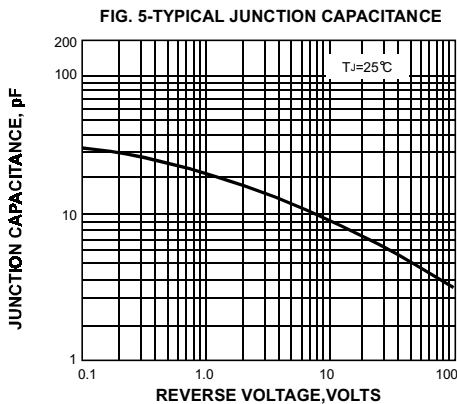
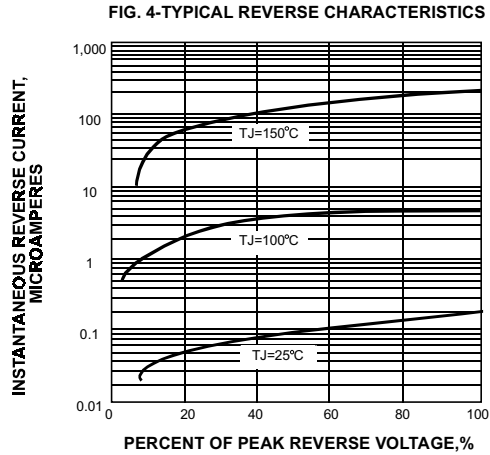
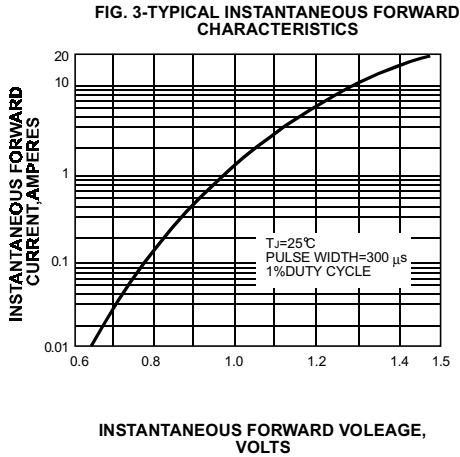
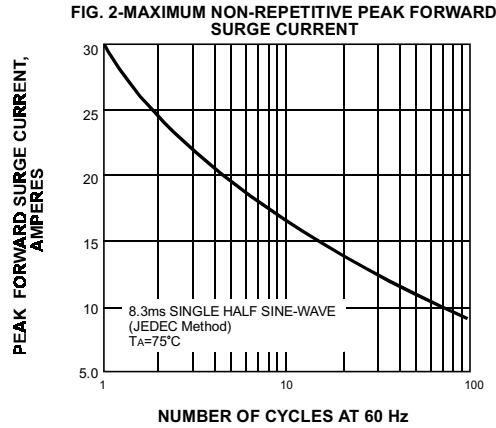
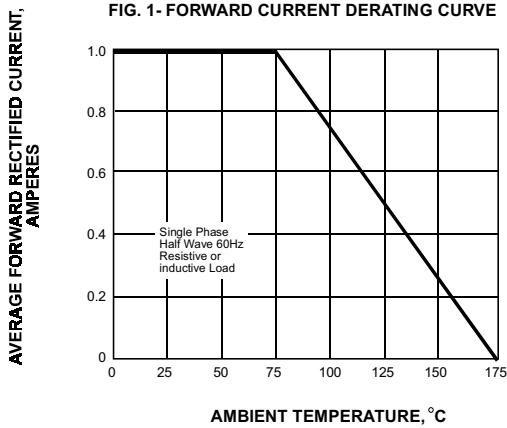
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

|   | SYMBOLS         | 1N 4001S    | 1N 4002S | 1N 4003S | 1N 4004S | 1N 4005S | 1N 4006S | 1N 4007S | UNITS              |
|---|-----------------|-------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | VOLTS              |
| Maximum RMS voltage   | $V_{RMS}$       | 35          | 70       | 140      | 280      | 420      | 560      | 700      | VOLTS              |
| Maximum DC blocking voltage   | $V_{DC}$        | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | VOLTS              |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$         | $I_{(AV)}$      | 1.0         |          |          |          |          |          |          | Amp                |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)       | $I_{FSM}$       | 30.0        |          |          |          |          |          |          | Amps               |
| Maximum instantaneous forward voltage at 1.0A   | $V_F$           | 1.1         |          |          |          |          |          |          | Volts              |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=100^\circ\text{C}$ | $I_R$           | 5.0<br>50.0 |          |          |          |          |          |          | $\mu\text{A}$      |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 15.0        |          |          |          |          |          |          | pF                 |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 50.0        |          |          |          |          |          |          | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$  | -65 to +175 |          |          |          |          |          |          | $^\circ\text{C}$   |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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**RATINGS AND CHARACTERISTIC CURVES 1N4001S THRU 1N4007S**



**TECHNICAL DATA**

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