

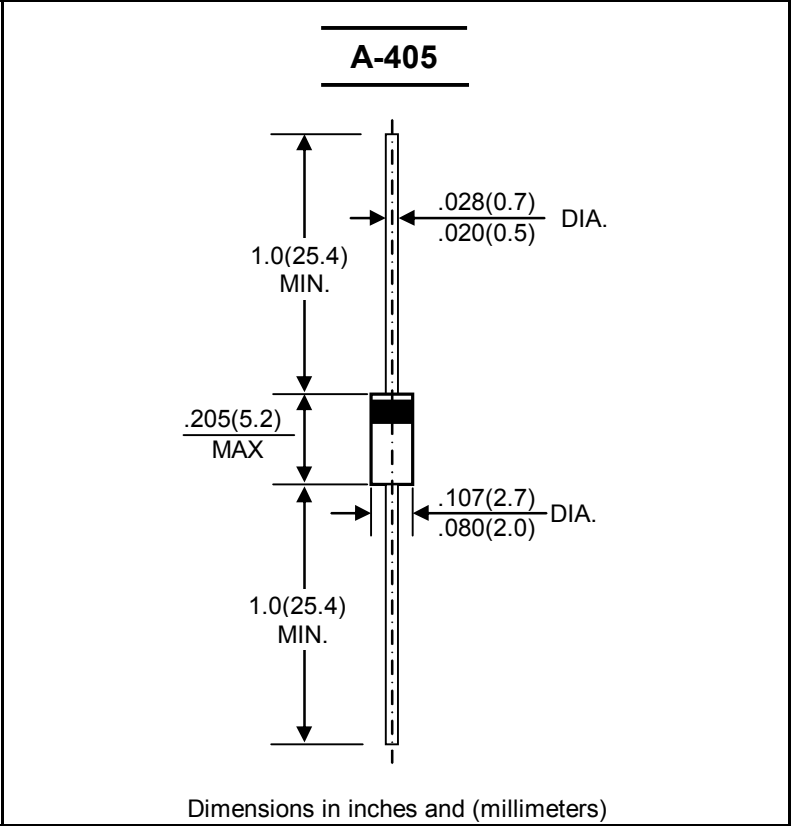
|                                   |  |
|-----------------------------------|--|
| <b>PLASTIC SILICON RECTIFIERS</b> | <b>REVERSE VOLTAGE - 50 to 1000 Volts</b><br><b>FORWARD CURRENT - 1.0 Ampere</b> |
|-----------------------------------|--|

**FEATURES**

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 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



**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%

| CHARACTERISTICS  | SYMBOL            | 1N4001S     | 1N4002S | 1N4003S | 1N4004S | 1N4005S | 1N4006S | 1N4007S | UNIT |
|--|-------------------|-------------|---------|---------|---------|---------|---------|---------|------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V    |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V    |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V    |
| Maximum Average Forward Rectified Current @T <sub>A</sub> =75 °C                                     | I <sub>(AV)</sub> | 1.0         |         |         |         |         |         |         | A    |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)    | I <sub>FSM</sub>  | 30          |         |         |         |         |         |         | A    |
| Maximum Forward Voltage at 1.0A DC   | V <sub>F</sub>    | 1.0         |         |         |         |         |         |         | V    |
| Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C | I <sub>R</sub>    | 5.0         |         |         |         |         |         |         | μA   |
| Typical Junction Capacitance (Note1)   | C <sub>J</sub>    | 15          |         |         |         |         |         |         | pF   |
| Typical Thermal Resistance (Note2)   | R <sub>θJC</sub>  | 26          |         |         |         |         |         |         | °C/W |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +125 |         |         |         |         |         |         | °C   |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150 |         |         |         |         |         |         | °C   |

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2. Thermal resistance junction to case

FIG. 1 - FORWARD CURRENT DERATING CURVE

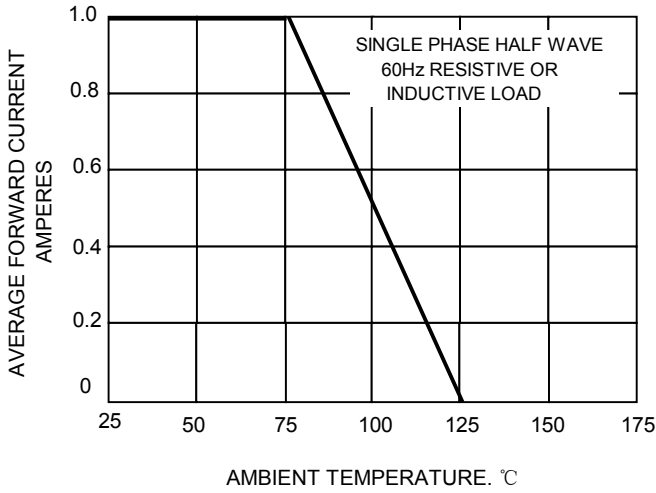


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

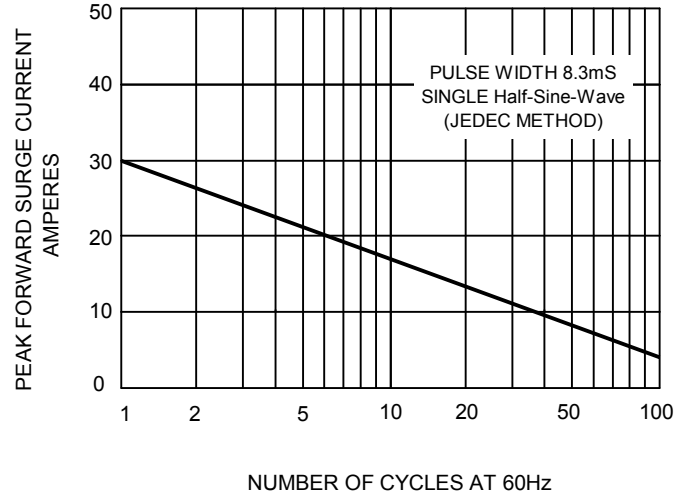


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

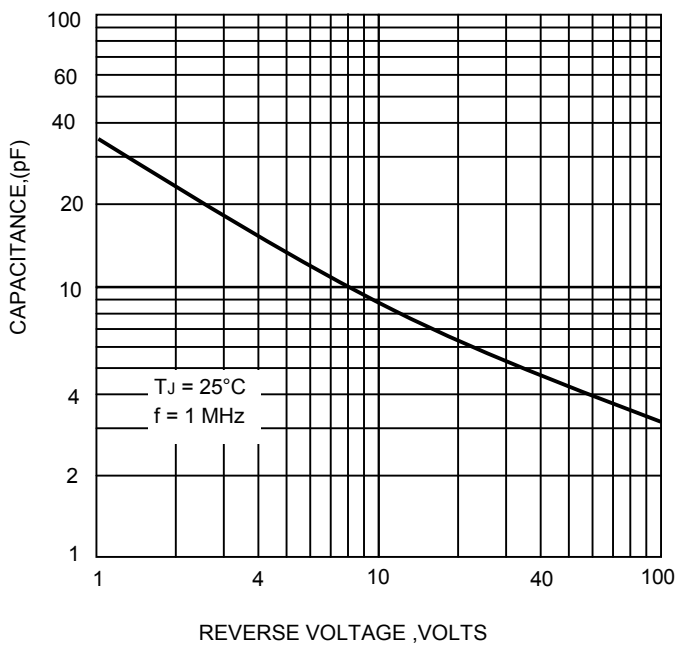


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

