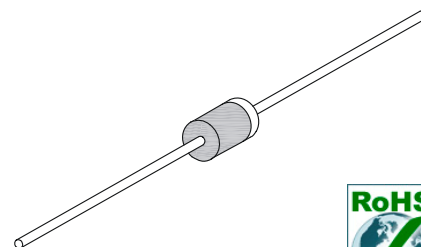


## 1.0A Standard Rectifier

### Features

- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- High Reliability
- High Temperature Soldering Guaranteed 250°C/10 seconds  
/.375" (9.5mm) lead length, 5lbs (2.3kg) tension
- RoHS compliant



A-405



### Mechanical Data

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| <b>Case:</b>      | Molded Plastic                                      |
| <b>Epoxy:</b>     | Meets UL 94V-0 flammability rating                  |
| <b>Terminals:</b> | Axial leads, solderable per MIL-STD-202, Method 208 |
| <b>Polarity:</b>  | Cathode indicated by color band                     |
| <b>Weight:</b>    | 0.012 Ounce, 0.34 gram                              |

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

| Symbol                   | Description                                         | RL101       | RL102 | RL103 | RL104 | RL105 | RL106 | RL107 | Unit |
|--------------------------|-----------------------------------------------------|-------------|-------|-------|-------|-------|-------|-------|------|
| <b>V<sub>RRM</sub></b>   | Maximum Repetitive Peak Reverse Voltage             | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V    |
| <b>V<sub>RMS</sub></b>   | Maximum RMS Voltage                                 | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V    |
| <b>V<sub>DC</sub></b>    | Maximum DC Blocking Voltage                         | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V    |
| <b>I<sub>O(AV)</sub></b> | Maximum Average Forward Rectified Current @Ta=75° C | 1.0         |       |       |       |       |       |       | A    |
| <b>I<sub>FSM</sub></b>   | Peak Forward Surge Current (Note1)                  | 50          |       |       |       |       |       |       | A    |
| <b>T<sub>J</sub></b>     | Operating Junction Temperature Range                | -55 to +125 |       |       |       |       |       |       | ° C  |
| <b>T<sub>STG</sub></b>   | Storage Temperature Range                           | -55 to +150 |       |       |       |       |       |       | ° C  |

# 1.0A Standard Rectifier

## RL101 - RL107

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

| Symbol          | Description                                             | RL101                 | RL102 | RL103 | RL104 | RL105 | RL106 | RL107 | Unit          |
|-----------------|---------------------------------------------------------|-----------------------|-------|-------|-------|-------|-------|-------|---------------|
| $V_F$           | Maximum Forward Voltage @ $I_F=1.0A$                    | 1.1                   |       |       |       |       |       |       | V             |
| $I_R$           | Maximum DC Reverse Current at Rated DC Blocking Voltage | $T_A=25^{\circ}C$ 5.0 |       |       |       |       |       |       | $\mu A$       |
|                 |                                                         | $T_A=125^{\circ}C$ 50 |       |       |       |       |       |       | $\mu A$       |
| $C_J$           | Typical Junction Capacitance (Note2)                    | 15                    |       |       |       |       |       |       | pf            |
| $R_{\theta-JA}$ | Maximum Thermal Resistance (Note3)                      | 50                    |       |       |       |       |       |       | $^{\circ}C/W$ |

- Note:**
1. 8.3ms single half sine-wave superimposed on rated load (JEDEC method)
  2. Measured at 1MHz and applied reverse voltage of 4.0Volts D.C.
  3. Thermal resistance from junction to ambient at .375" (9.5mm) lead length.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

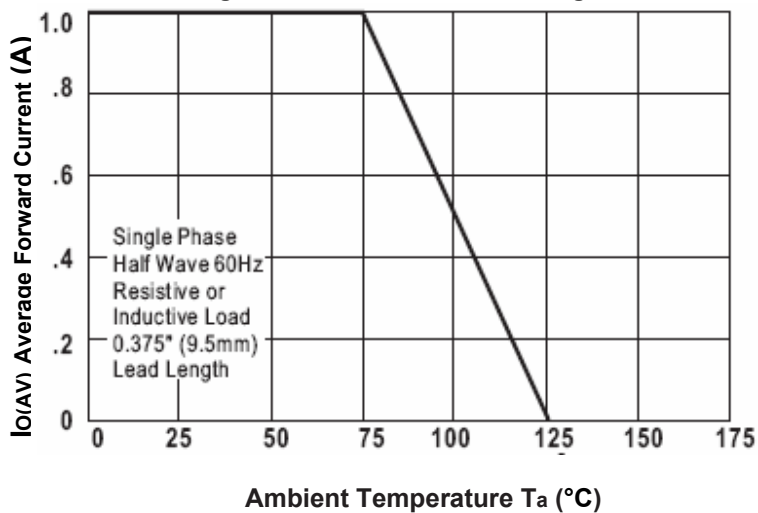
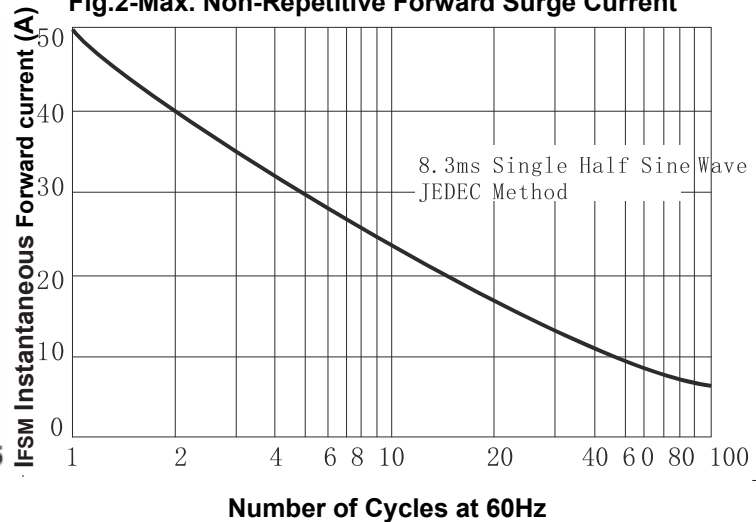


Fig.2-Max. Non-Repetitive Forward Surge Current



# 1.0A Standard Rectifier

RL101 - RL107

Fig.3-Typical Instantaneous Forward Characteristics

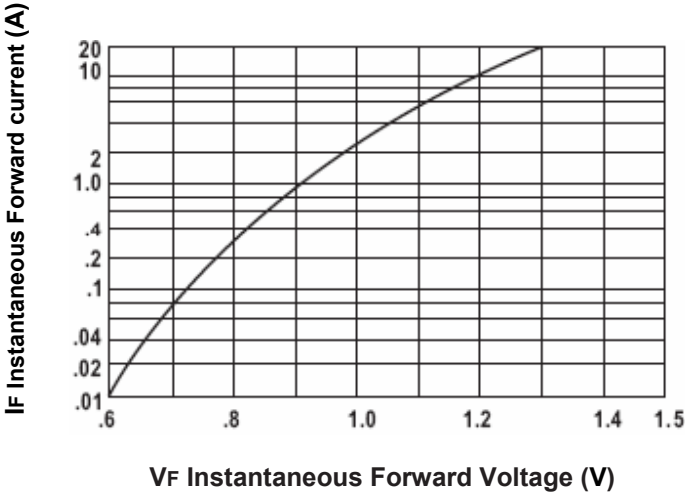


Fig.4- Typical Reverse Characteristics

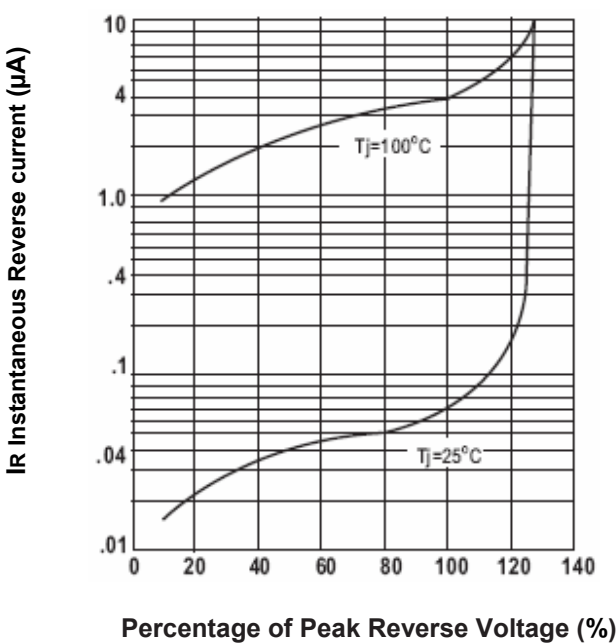
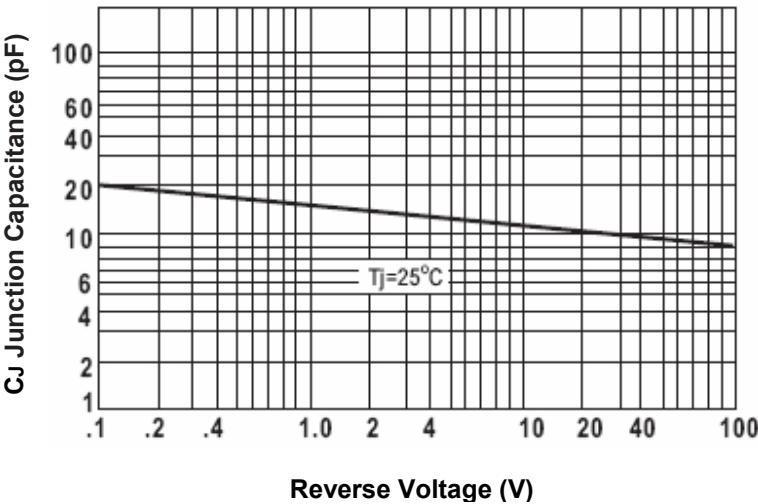


Fig.5-Typical junction capacitance

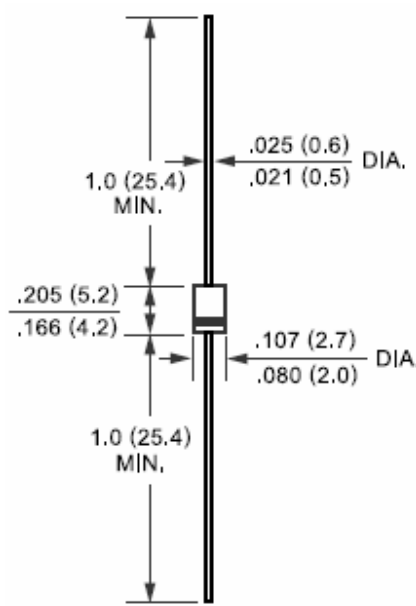


## 1.0A Standard Rectifier

RL101 - RL107

Dimensions in inches (mm)

A-405



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