



Micro Commercial Components



Micro Commercial Components  
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## RL101 THRU RL107

### Features

- Halogen free available upon request by adding suffix "-HF"
- Low Current Leakage
- Metalurgically Bonded Construction
- Low Cost
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 50 °C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| RL101              | RL101          | 50V                                    | 35V                 | 50V                         |
| RL102              | RL102          | 100V                                   | 70V                 | 100V                        |
| RL103              | RL103          | 200V                                   | 140V                | 200V                        |
| RL104              | RL104          | 400V                                   | 280V                | 400V                        |
| RL105              | RL105          | 600V                                   | 420V                | 600V                        |
| RL106              | RL106          | 800V                                   | 560V                | 800V                        |
| RL107              | RL107          | 1000V                                  | 700V                | 1000V                       |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

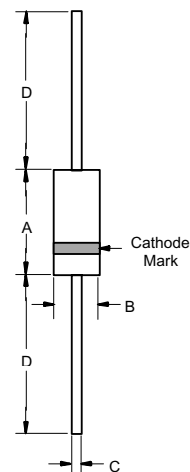
|   |             |                                       |   |
|---|-------------|---------------------------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.0A                                  | $T_A = 75^\circ\text{C}$                              |
| Peak Forward Surge Current                              | $I_{FSM}$   | 30A                                   | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.1V                                  | $I_{FM} = 1.0A$ ;<br>$T_J = 25^\circ\text{C}^*$       |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5.0 $\mu\text{A}$<br>50 $\mu\text{A}$ | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$       | 15pF                                  | Measured at 1.0MHz, $V_R=4.0V$                        |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

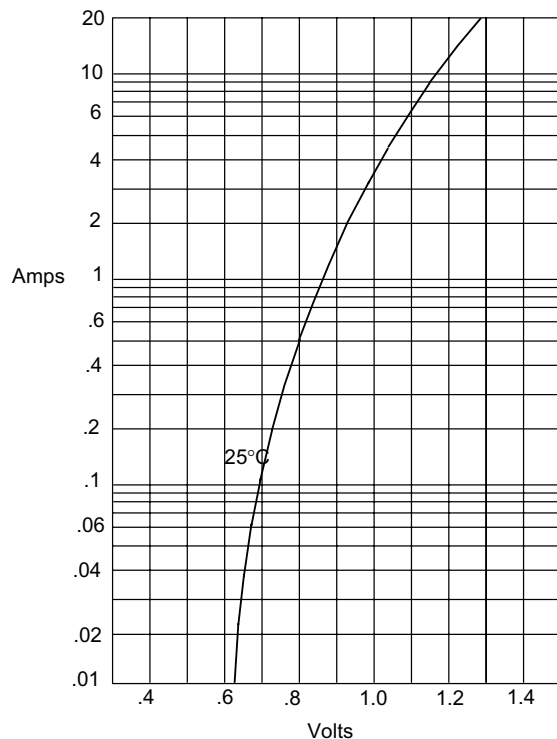
## 1 Amp Rectifier 50 - 1000 Volts

### A-405



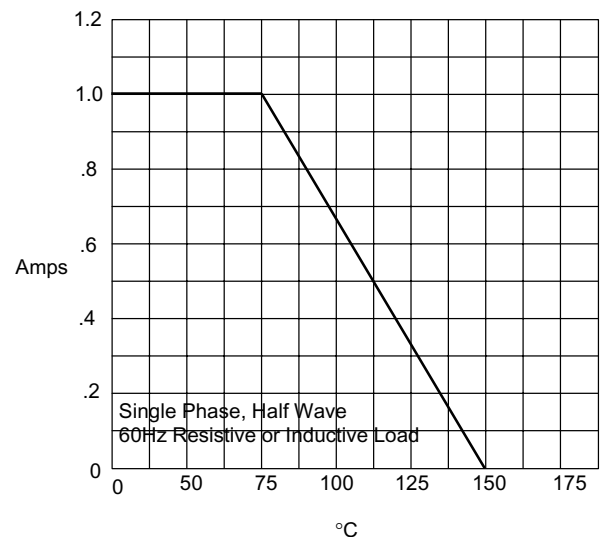
| DIMENSIONS |        |      |       |      |      |
|------------|--------|------|-------|------|------|
| DIM        | INCHES |      | MM    |      | NOTE |
|            | MIN    | MAX  | MIN   | MAX  |      |
| A          | .166   | .205 | 4.10  | 5.20 |      |
| B          | .080   | .107 | 2.00  | 2.70 |      |
| C          | ---    | .024 | ---   | .60  |      |
| D          | 1.000  | ---  | 25.40 | ---  |      |

Figure 1  
Typical Forward Characteristics



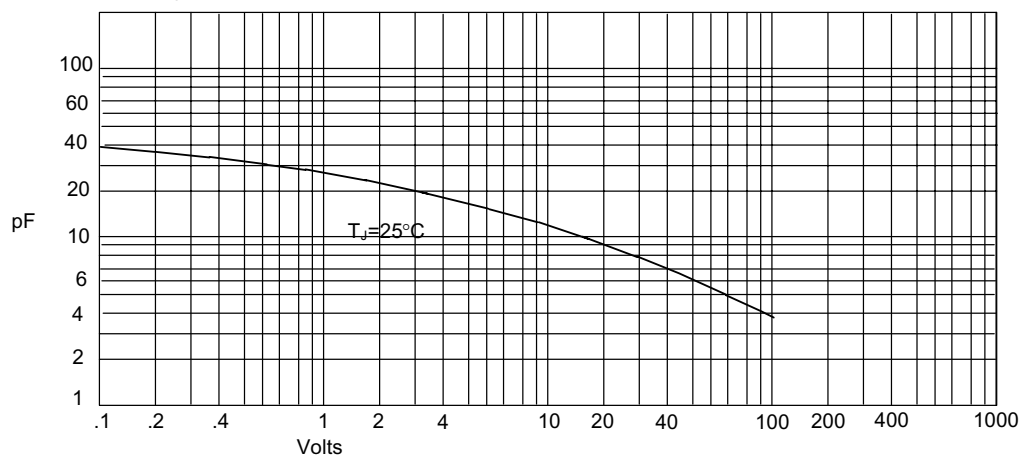
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

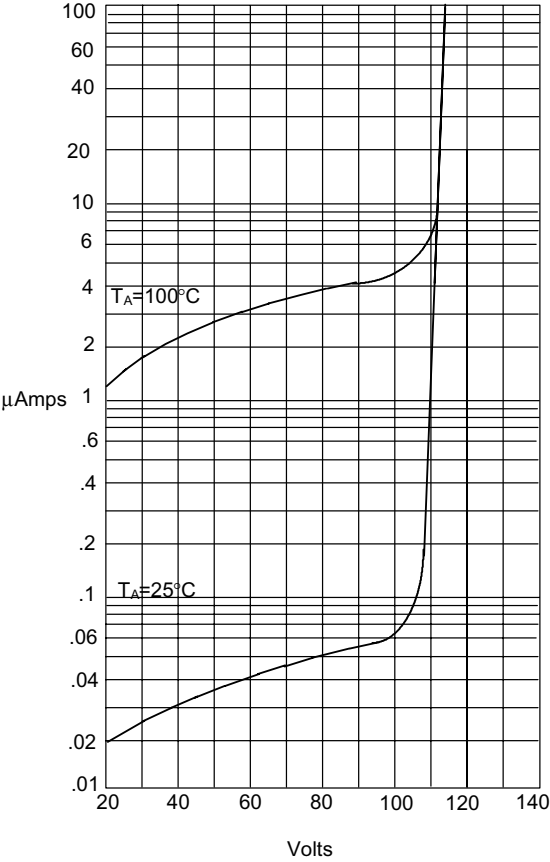
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

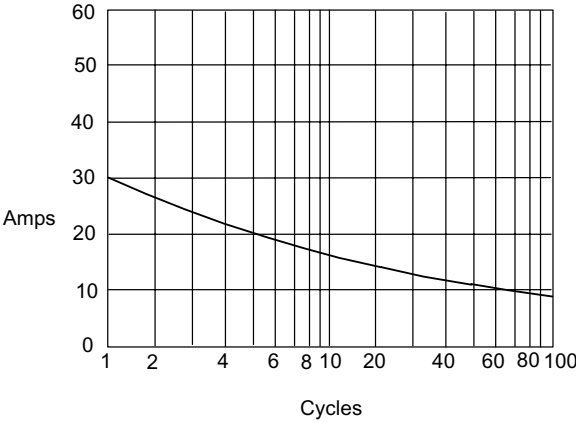
RL101 thru RL107

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmpere *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

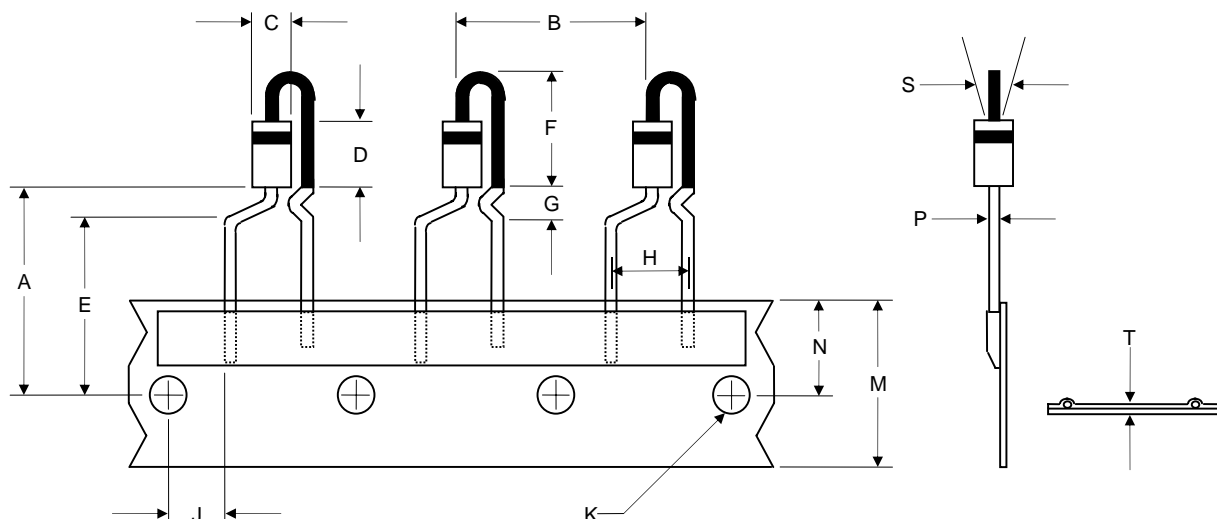
Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles

## **RADIAL TAPING SPECIFICATIONS** **FOR RECTIFIERS**

### **A-405 Outline Only**



| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
| DIM        | INCHES |       | MM   |      | NOTE |
|            | MIN    | MAX   | MIN  | MAX  |      |
| A          | .709   | .748  | 18.0 | 20.0 |      |
| B          | .460   | .540  | 11.7 | 13.7 |      |
| C          | ---    | .106  | ---  | 2.7  |      |
| D          | ---    | .205  | ---  | 5.2  |      |
| E          | .610   | .650  | 15.5 | 16.5 |      |
| F          | ---    | .354  | ---  | 9.0  |      |
| G          | ---    | .177  | ---  | 4.5  |      |
| H          | .177   | .217  | 4.5  | 5.5  |      |
| J          | .124   | .179  | 3.15 | 4.55 |      |
| K          | .146   | .169  | 3.7  | 4.3  |      |
| M          | .677   | .748  | 17.2 | 19.0 |      |
| N          | .343   | .384  | 8.70 | 9.75 |      |
| P          | .021   | .025  | .54  | .64  |      |
| S          | ---    | ±.079 | ---  | ±2.0 |      |
| T          | .016   | .031  | .4   | .8   |      |

#### PACKING METHODS

P/N EXAMPLE: A=N:PANASERT

A B C

B = 0: NON INSULATION COATING---  
LEAD FIRST OUT.

1: INSULATION COATING---  
LEAD FIRST OUT.

2: NON INSULATION COATING---  
BODY FIRST OUT.

3: INSULATION COATING---  
BODY FIRST OUT.

C = 1: FOR CATHODE DOWN,  
IN BULK.

2: FOR CATHODE UP,  
IN BULK.

3: FOR CATHODE DOWN,  
IN REEL.

4: FOR CATHODE UP,  
IN REEL

## Ordering Information :

| Device  | Packing                      |
|---|------------------------------|
| Part Number-TP  | Tape&Reel: 5Kpcs/Reel        |
| RL101~RL107-A-B-C-AP(See page 4 for A/B/C suffix details) | Ammo Packing: 2Kpcs/Ammo Box |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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