



# RL101 THRU RL107

## GENERAL PURPOSE PLASTIC RECTIFIER

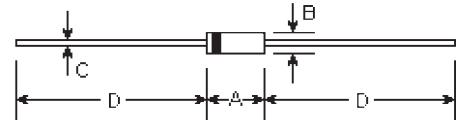
Reverse Voltage - 50 to 1000 Volts

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

### A-405



### 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 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	φ
C	0.020	0.024	0.5	0.6	φ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics @25°C unless otherwise specified

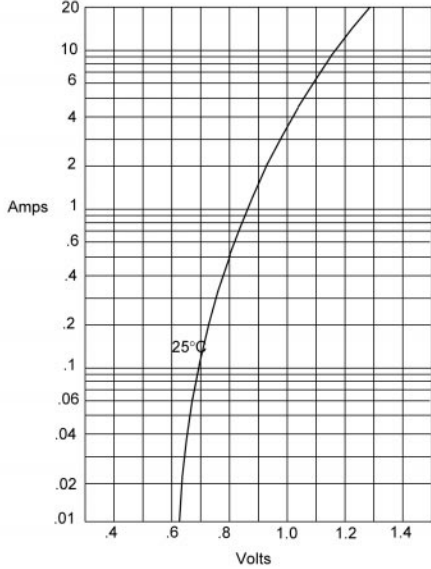
	Symbols	RL101	RL102	RL103	RL104	RL105	RL106	RL107	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Average forward current at $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3mS single half sine-wave	$I_{FSM}$	30.0							Amps
Maximum instantaneous forward voltage at $I_{FM}=1.0\text{A}$ ; $T_J=25^\circ\text{C}$ (Note 2)	$V_F$	1.10							Volts
Maximum DC reverse current at rated DC blocking voltage $T_J=25^\circ\text{C}$ / $T_J=125^\circ\text{C}$	$I_R$	5.0 / 50.0							$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	15.0							$\mu\text{F}$
Maximum thermal resistance	$R_{\theta JL}$	50							$^\circ\text{C}/\text{W}$
Operating and storage temperature range	$T_J, T_{STG}$	-65 to +175							$^\circ\text{C}$

#### Notes:

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0 volts
- (2) Pulse test: Pulse width 300uSec, Duty cycle 2%

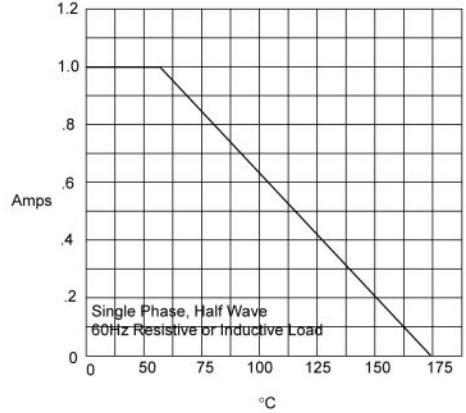
# RATINGS AND CHARACTERISTIC CURVES

Figure 1  
Typical Forward Characteristics



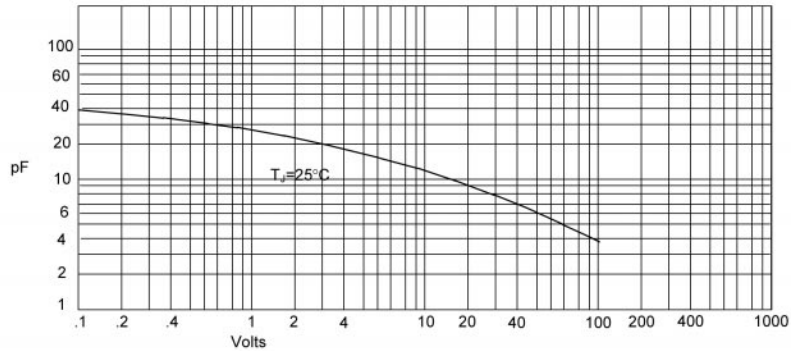
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

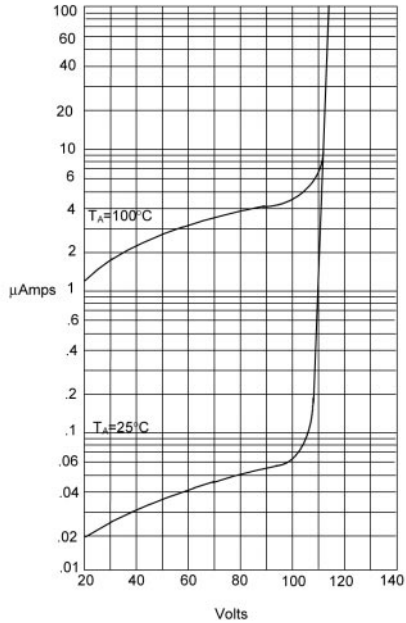
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

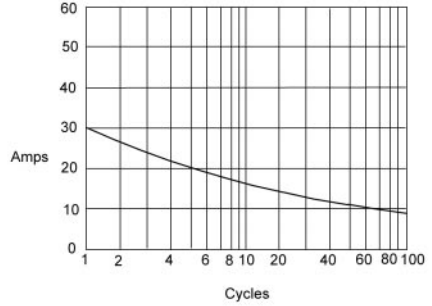
# RATINGS AND CHARACTERISTIC CURVES

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *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