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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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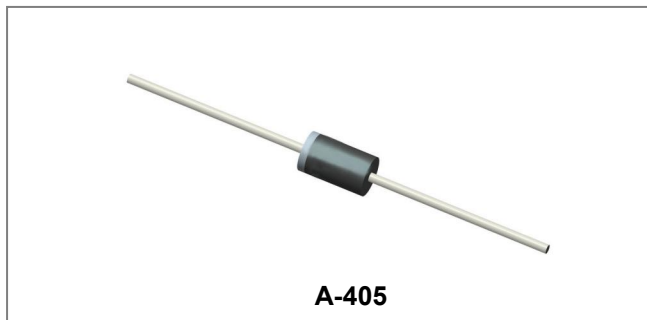
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# **RL101 THRU RL107**

## **GENERAL PURPOSE SILICON RECTIFIER**

### **Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Amperes**



### 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
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### 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 @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

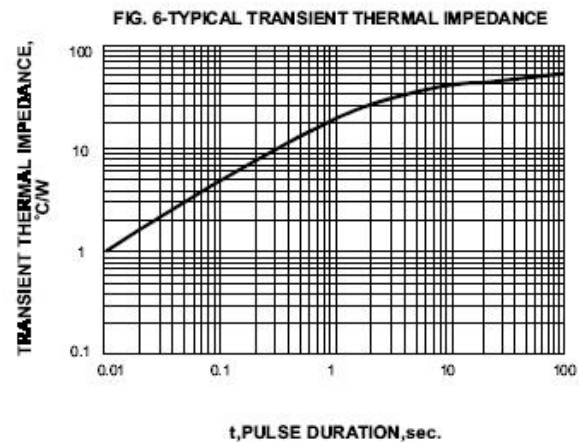
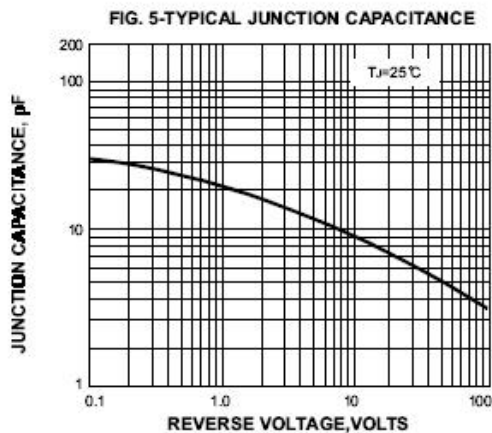
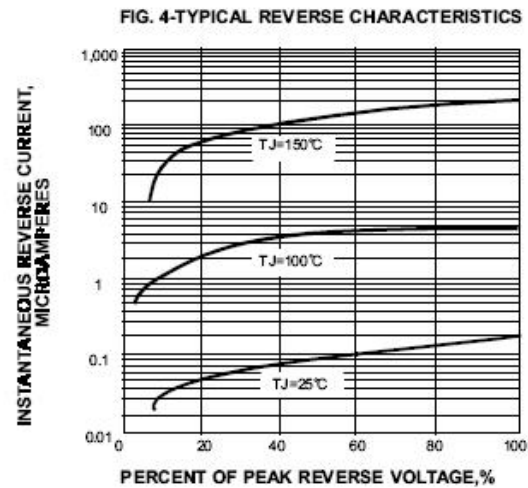
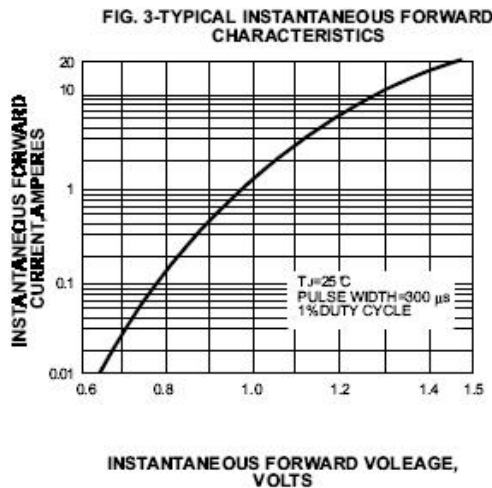
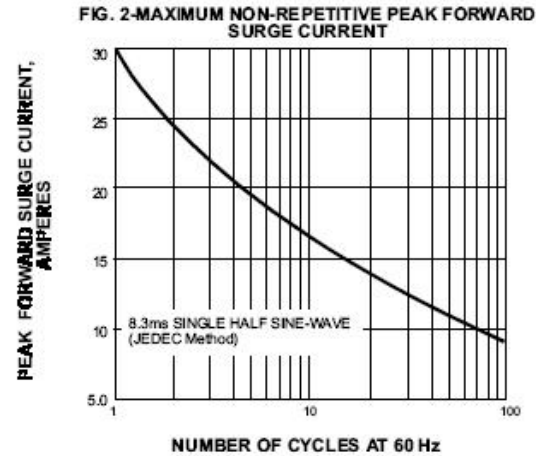
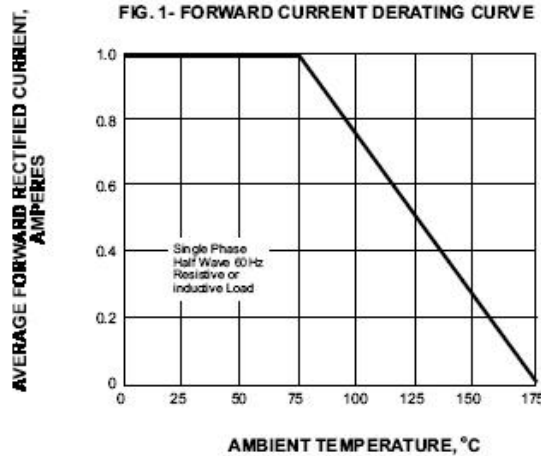
Characteristic	Symbol	RL101	RL102	RL103	RL104	RL105	RL106	RL107	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	$V_{RRM}$ $V_{DC}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375"(9.5mm) lead length @T <sub>A</sub> = 75°C	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							V
Maximum DC reverse current @T <sub>A</sub> = 25°C at rated DC blocking voltage @T <sub>A</sub> = 100°C	$I_R$	5.0 50.0							μA
Typical Junction Capacitance (Note 1)	$C_J$	15.0							pF
Typical Thermal Resistance (Note 2)	$R_{θJA}$	50.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175							°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

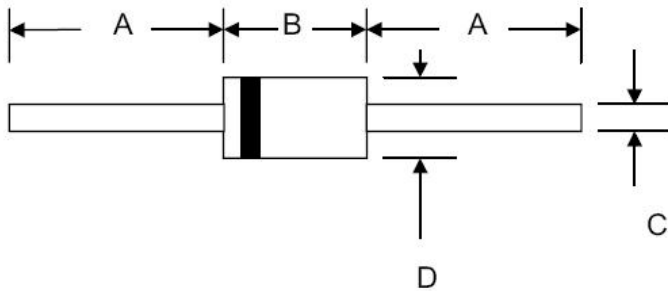
2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted



## Ratings and Characteristics Curves



## Mechanical Dimensions A-405



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.20	5.20	0.166	0.205
C	0.55	0.65	0.021	0.025
D	2.00	2.70	0.080	0.107

## Ordering Information

Device	Package	Shipping
RL101-RL107	A-405 (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Marking Diagram

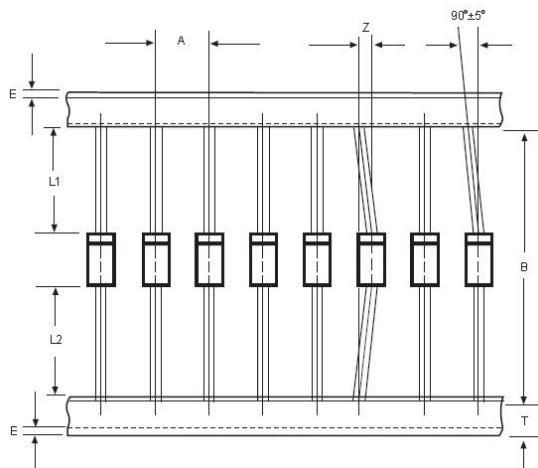


Where XXXXX is YYWWL

RL101 = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

Cautions: Molding resin  
Epoxy resin UL:94V-0

## Carrier Tape Specification A-405



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	25.3	25.5
Z	1.20	1.30
T	5.5	6.5
E	-	0.80
IL1-L2I	-	1.0

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