

## DC COMPONENTS CO., LTD.

#### RECTIFIER SPECIALISTS

1N / RL 4001A / 101 THRU 1N / RL 4007A / 107

# TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.0 Ampere

#### **FEATURES**

- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

#### MECHANICAL DATA

\* Case: Molded plastic

\* Epoxy: UL 94V-0 rate flame retardant

\* Lead: MIL-STD-202E, Method 208 guaranteed

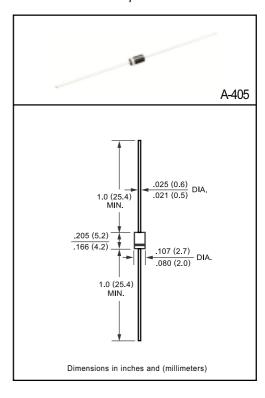
\* Polarity: Color band denotes cathode end

\* Mounting position: Any

\* Weight: 0.22 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

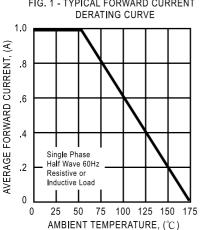


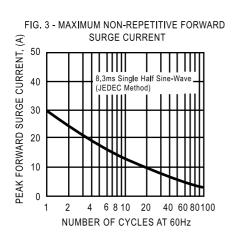
			1N4001A	1N4002A	1N4003A	1N4004A	1N4005A	1N4006A	1N4007A		
		SYMBOL	RL101	RL102	RL103	RL104	RL105	RL106	RL107	UNITS	
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at TA = 55°C		lo	1.0							Amps	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30						Amps		
Maximum Instantaneous Forward Voltage at 1.0A DC		VF	1.1						Volts		
Maximum DC Reverse Current	@Ta = 25°C		5.0							uAmps	
at Rated DC Blocking Voltage	@Ta = 100°C	l <sub>R</sub>	500								
Maximum Full Load Reverse Current Average, Full Cycle $.375^*(9.5mm)$ lead length at T L = $75^\circ$ C		IR	30							uAmps	
Typical Junction Capacitance (Note)		Cı	15						pF		
Typical Thermal Resistance		RθJA	50						°C/W		
Operating and Storage Temperature Range		TJ, TSTG	-65 to + 175							٥C	

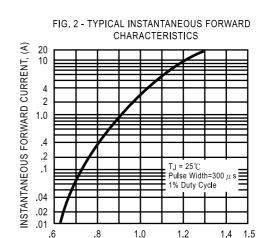
NOTES: Measured at 1 MHz and applied reverse voltage of 4.0 volts

### RATING AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT **DERATING CURVE** 1.0 AVERAGE FORWARD CURRENT, (A) .8 .6 .4 Single Phase Half Wave 60Hz .2 Resistive or Inductive Load 0 25 50 75 100 125 150 175







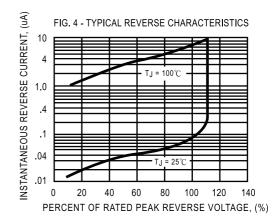
THRU

1N4007A

**RL107** 

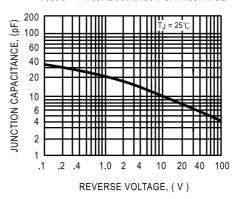
1N4001A

**RL101** 



INSTANTANEOUS FORWARD VOLTAGE, (V)







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