



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

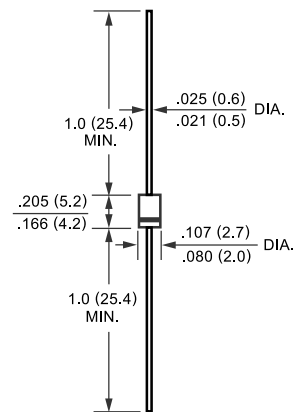
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.22 gram

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%.



A-405



Dimensions in inches and (millimeters)

		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	IO	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 at Rated DC Blocking Voltage	@ TA = 25°C	5.0							uAmps
	@ TA = 100°C	500							
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at T L = 75°C	IR	30							uAmps
Typical Junction Capacitance (Note)	CJ	15							pF
Typical Thermal Resistance	R θ J A	50							°C/ W
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175							°C

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



RATING AND CHARACTERISTIC CURVES

(1N4001A THRU 1N4007A)
RL101 RL107

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

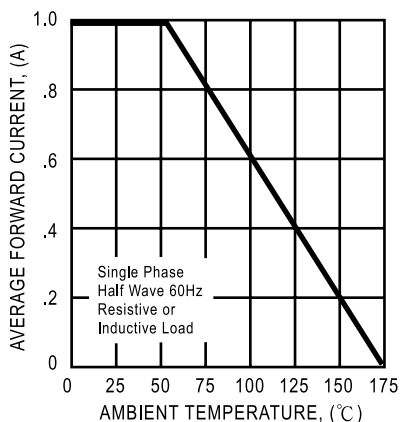


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

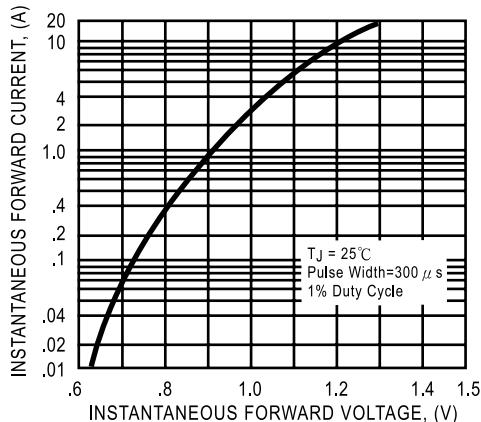


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

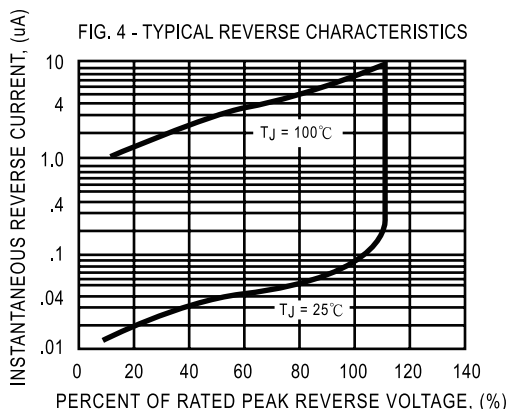
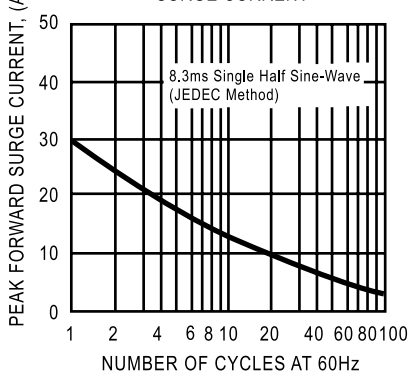
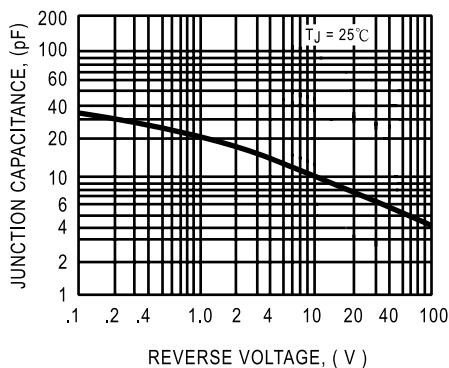


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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