

RL1N1X00F SERIES

PHOTOFLASH FAST RECOVERY RECTIFIER

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RL1N1000F THRU RL1N1800F

PHOTOFLASH FAST RECOVERY RECTIFIER



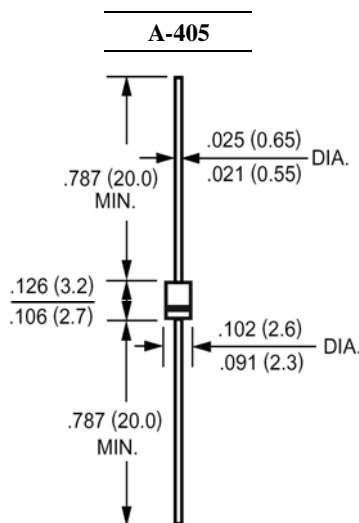
REVERSE VOLTAGE: 1000 to 1800 VOLTS
FORWARD CURRENT: 0.5 AMPERE

FEATURES

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

MECHANICAL DATA

Case: Molded plastic, A-405
 Epoxy: UL 94V-O rate flame retardant
 Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
 Polarity: Color band denotes cathode end
 Mounting position: Any
 Weight: 0.008ounce, 0.22gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	RL1N1000F	RL1N1200F	RL1N1400F	RL1N1600F	RL1N1800F	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	1200	1400	1600	1800	Volts
Maximum RMS Voltage	V_{RMS}	700	840	980	1120	1260	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	1200	1400	1600	1800	Volts
Maximum Average Forward Rectified Current at $T_A=55^\circ\text{C}$	$I_{(AV)}$	0.5					Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amp
Maximum Forward Voltage at 0.5A DC and 25°C	V_F	1.8					Volts
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	I_R	5.0					uAmp
Maximum Full Load Reverse Current Average, Full Cycle .375", (9.5mm) lead length at $T_L = 55^\circ\text{C}$		100					uAmp
Typical Junction Capacitance (Note 1)	C_J	10					pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	300					nS
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150					°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions: $I_F=5A$, $I_R=1A$, $I_{RR}=0.25A$.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

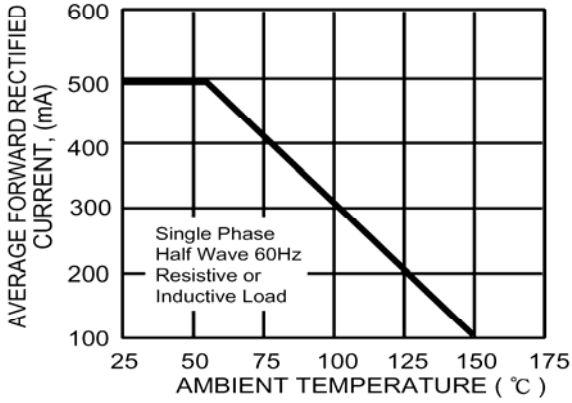


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

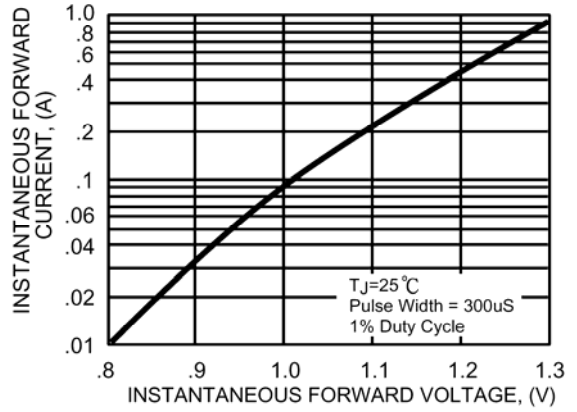


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

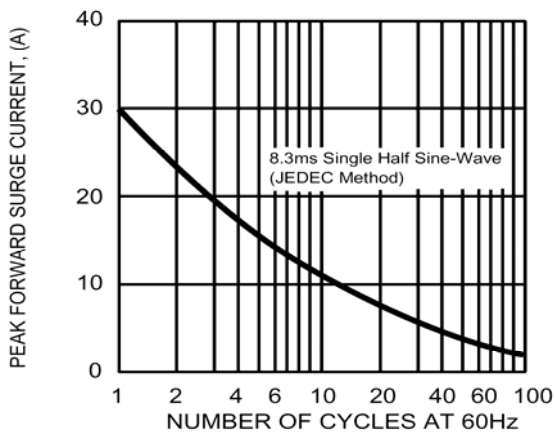


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

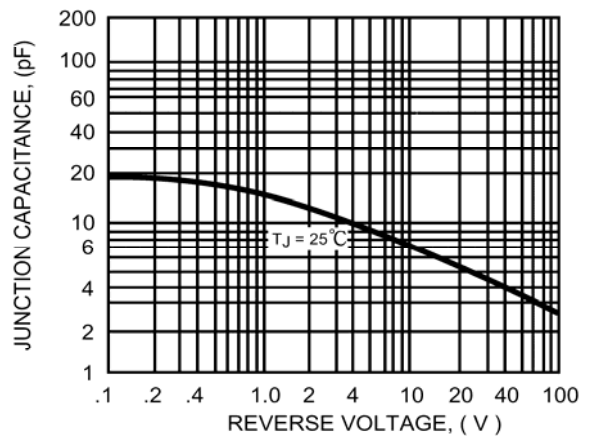
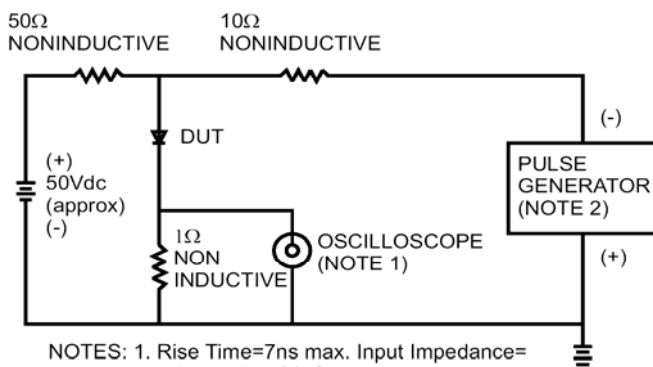


FIG. 5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



- NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms

