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

· Fast switching

· Low leakage

· Low forward voltage drop

· High current capability

· High current surge

· High reliability

MECHANICAL DATA

Case: Molded plastic, A-405

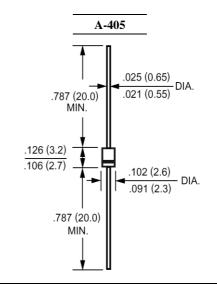
Epoxy: UL 94V-O rate flame retardant

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 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	т	0.5					Amp
at T _A =55	$I_{(AV)}$						
Peak Forward Surge Current,							
8.3ms single half-sine-wave	I_{FSM}		30				Amp
superimposed on rated load (JEDEC method)							
Maximum Forward Voltage	•	1.8					Volts
at 0.5A DC and 25	$V_{\rm F}$						
Maximum Reverse Current		5.0					uAmp
at Rated DC Blocking Voltage T _A =25	т						
Maximum Full Load Reverse Current Average,	$ I_R$	100					uAmp
Full Cycle .375", (9.5mm) lead length at $T_L = 55$							
Typical Junction Capacitance (Note 1)	$C_{\mathbf{J}}$	10					pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	300					nS
Operating and Storage Temperature Range	T _J , Tstg	-55 to +150					

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} =.25A.

RL1N1000F THRU RL1N1800F



RATINGS AND CHARACTERISTIC CURVES

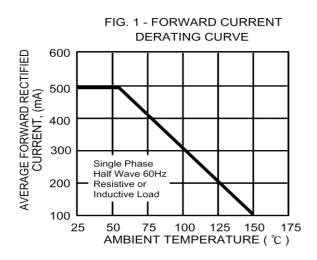


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS 1.0 INSTANTANEOUS FORWARD CURRENT, (A) .8 .6 .4 .2 .1 .06 .04 T.i=25 ℃ .02 Pulse Width = 300uS 1% Duty Cycle .01 1.0 1.1 INSTANTANEOUS FORWARD VOLTAGE, (V)

FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

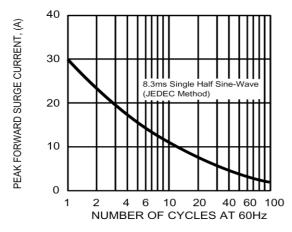


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

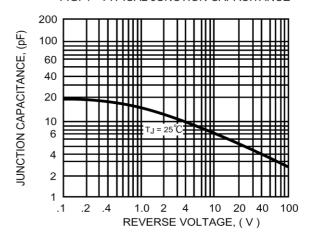


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

