

PHOTOFLASH RECTIFIER

VOLTAGE RANGE 1000 to 1800 Volts CURRENT 0.5 Ampere

FEATURES

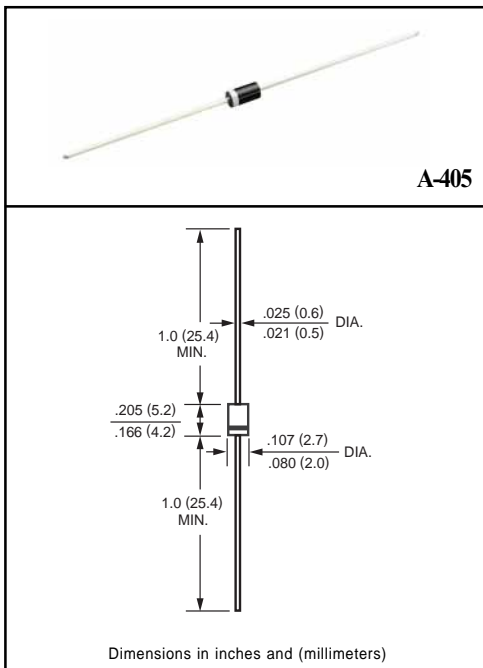
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.20 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%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	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 Current at TA = 55°C	I _O	500					Amps
Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25					Amps
Typical Junction Capacitance (Note 2)	C _J	10					pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 175					°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RL1N1000F	RL1N1200F	RL1N1400F	RL1N1600F	RL1N1800F	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V _F	1.8					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	5.0					uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 55°C		100					uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	300					nSec

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (RL1N100F THRU RL1N1800F)

FIG. 1 - FORWARD CURRENT DERATING CURVE

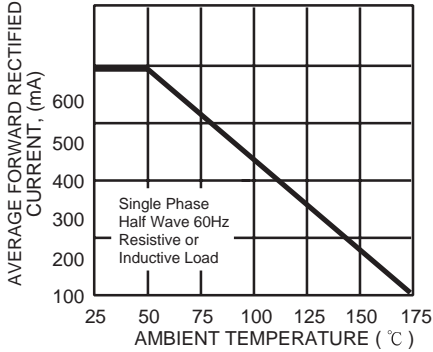


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

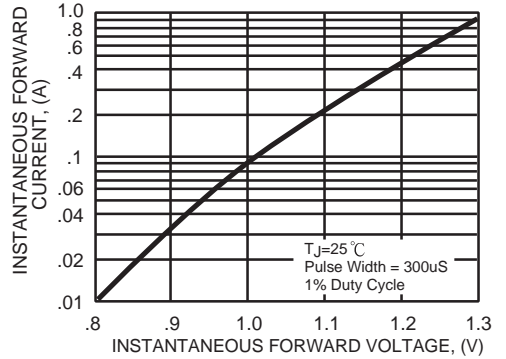


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

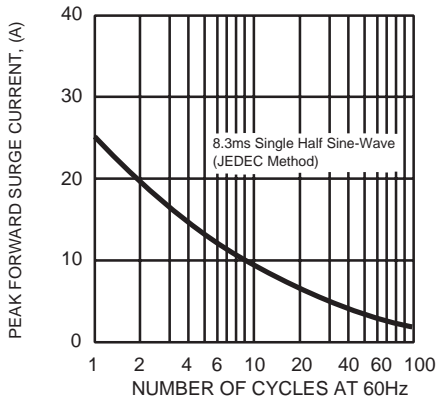


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

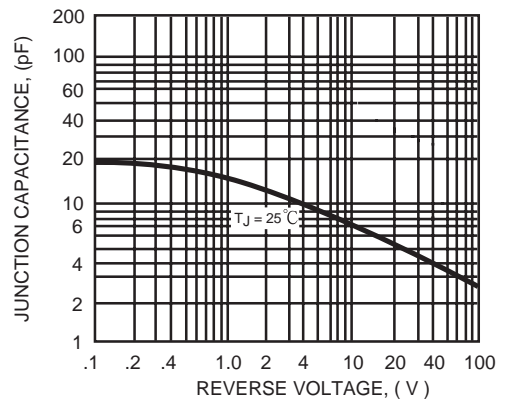
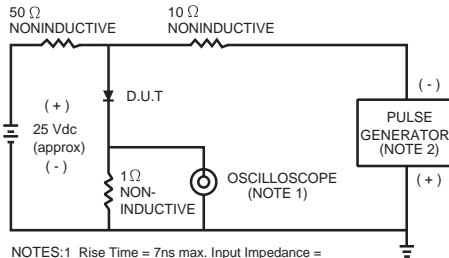


FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

