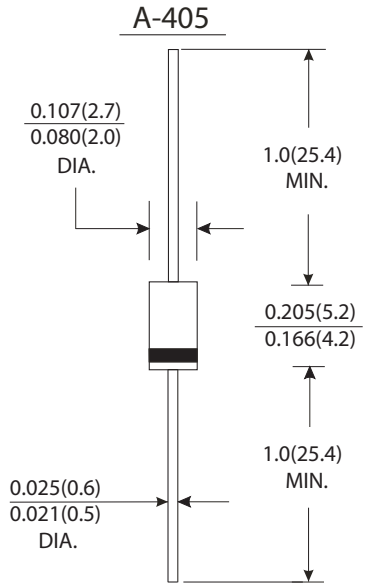
DEC

RL101F THRU RL107F

CURRENT 1.0 Amper
VOLTAGE 50 to 1000 Volts

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94-0
- Fast switching speed
- Low forward voltage drop, high efficiency
- High current capability
- High reliability



Dimensions in inches and (millimeters)

Mechanical Data

- Case : A-405 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.08 ounce, 0.22 gram

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 by 20%)

	Symbols	RL 101F	RL 102F	RL 103F	RL 104F	RL 105F	RL 106F	RL 107F	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length T_A=55℃	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0							μA
Maximum full load reverse current full cycle average. 0.375"(9.5mm) lead length at T_A=55℃		100.0							
Maximum reverse recovery time (Note 1)	Trr	150				250	500		ns
Typical junction capacitance (Note 2)	C_J	15.0							pF
Operating junction and storage temperature range	T_J T_{STG}	-65 to +150							℃

Notes:
(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES RL101F THRU RL107F

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

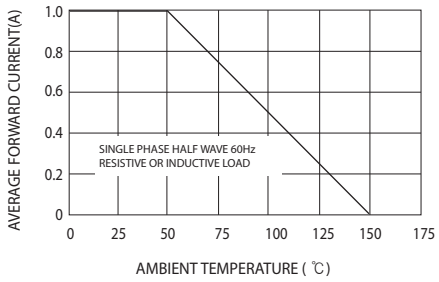


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

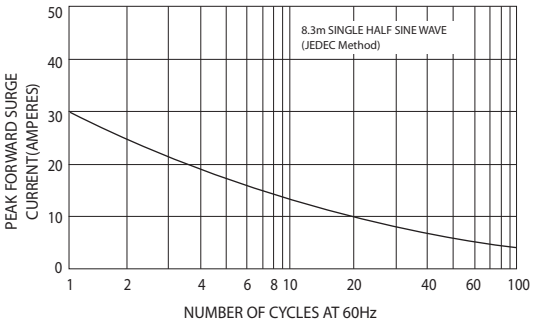


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

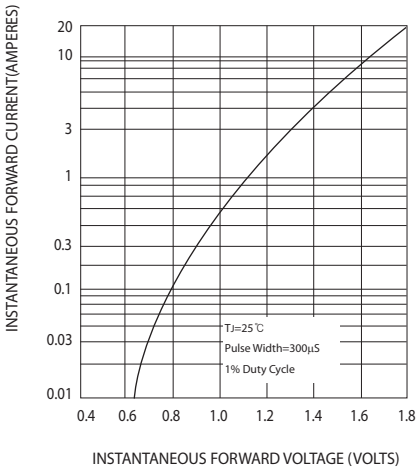


FIG.4-TYPICAL REVERSE CHARACTERISTICS

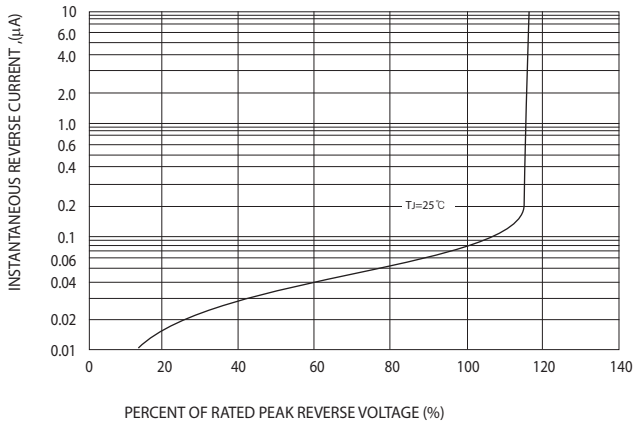


FIG.5-TYPICAL JUNCTION CAPACITANCE

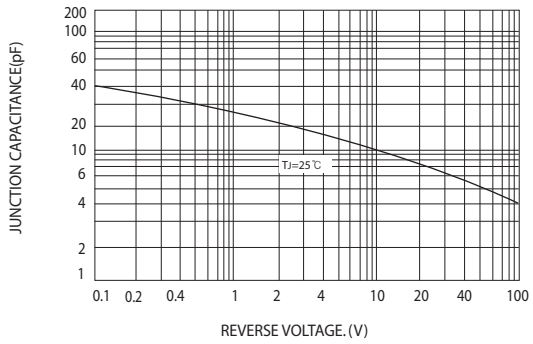
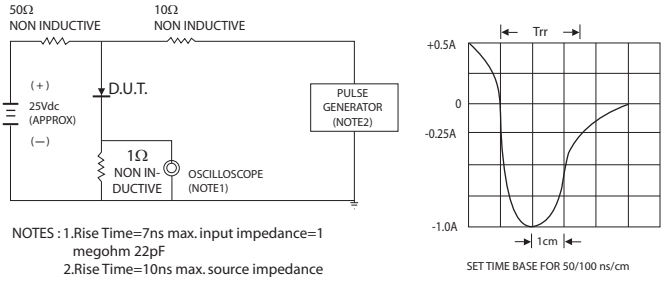


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns max. input impedance=1 megohm 22pF
2.Rise Time=10ns max. source impedance =50 ohms

SET TIME BASE FOR 50/100 ns/cm