

**VOLTAGE RANGE: 50 --- 1000 V**

**CURRENT: 1.0 A**



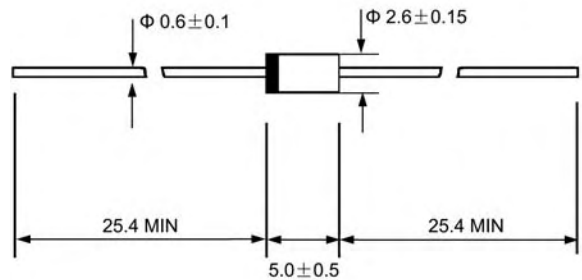
## Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ High forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-O

## Mechanical Data

- ◇ Case: JEDEC A - 405, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.008 ounces, 0.23 grams
- ◇ Mounting position: Any

### A - 405



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

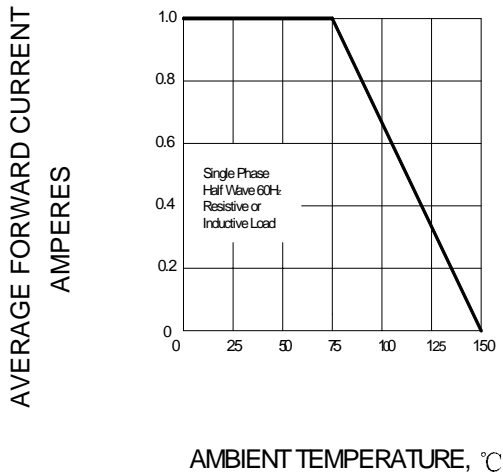
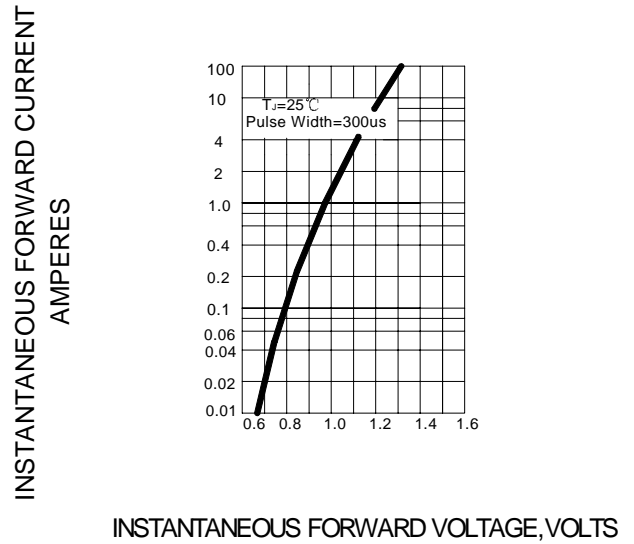
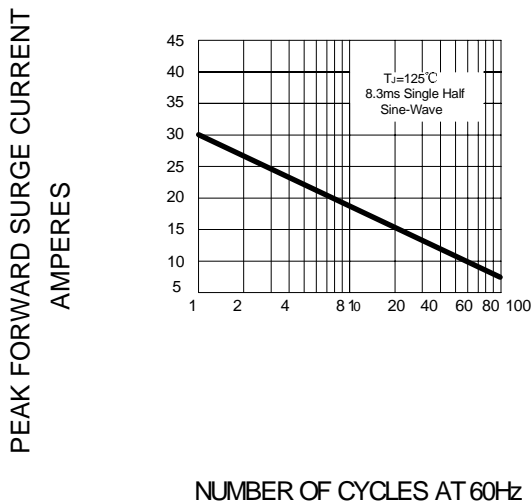
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		RL 101	RL 102	RL 103	RL 104	RL 105	RL 106	RL 107	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_A=125^\circ\text{C}$	$I_{FSM}$	30.0							A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.0							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0 50.0							$\mu\text{A}$
Typical junction capacitance (Note1)	$C_J$	15							pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55-----+150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55-----+150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

## Ratings AND Characteristic Curves

**FIG.1 – FORWARD DERATING CURVE**

**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**

**FIG.3 – PEAK FORWARD SURGE CURRENT**

**FIG.4 – TYPICAL JUNCTION CAPACITANCE**
