

# RL251 THRU RL257

## SILICON RECTIFIERS

### FEATURES:

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

### MECHANICAL DATA

Case : Molded plastic

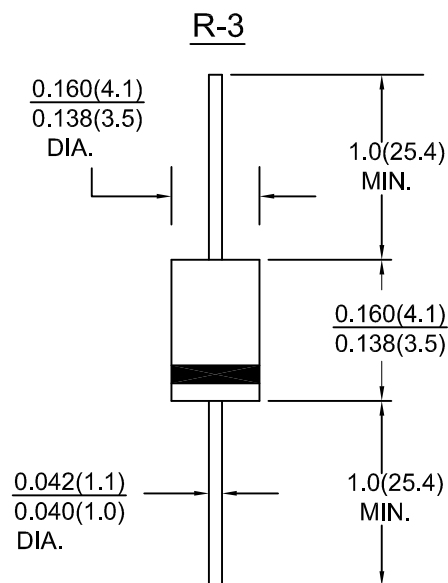
Epoxy : UL 94V-0 rate flame retardant epoxy

Lead : Axial leads, solderable per MIL-STD-202,  
Method 208 guaranteed

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 0.54 gram



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

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

For capacitive load, derate current by 20 %.

Characteristic	Symbol	RL 251	RL 252	RL 253	RL 254	RL 255	RL 256	RL 257	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 .375(9.5mm) lead length at $T_a=75^\circ C$	$I_O$	2.5							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	$I_{FSM}$	150							Amps
Maximum instantaneous forward voltage drop at 2.5 A	$V_F$	1.0							Volts
Maximum DC reverse current $T_a=25^\circ C$ at rated DC blocking voltage $T_a=125^\circ C$	$I_R$	5.0 50.0							$\mu A$
Typical junction capacitance (note 1)	$C_j$	35							pF
Typical thermal resistance $R_{th-JA}$ (note 2)	$R_{th-JA}$	35							$^\circ C/W$
Operating and storage temperature range	$T_j, T_{stg}$	-65 to +175							$^\circ C$

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

2. Thermal resistance from junction to ambient .375"(9.5mm) lead length

# RATING AND CHARACTERISTIC CURVES RL251 THRU RL257

FIG.1-TYPICAL FORWARD CHARACTERISTICS

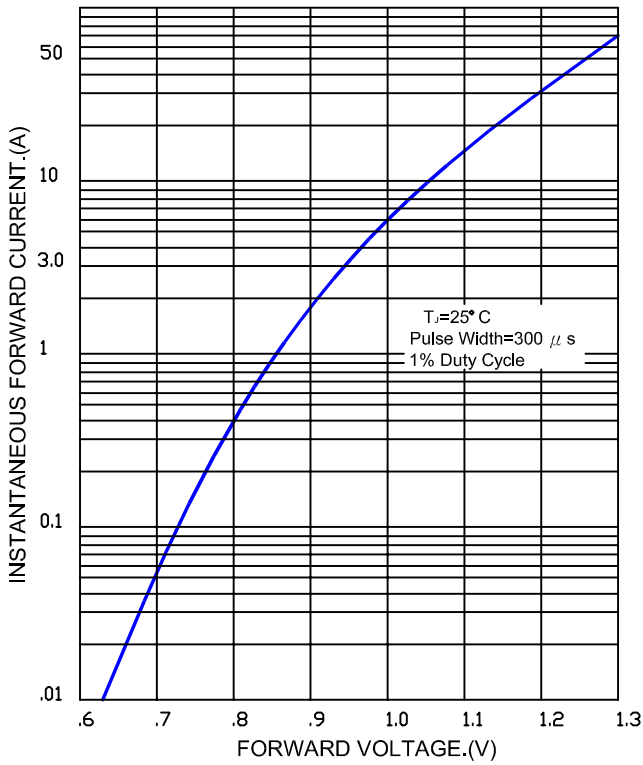


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

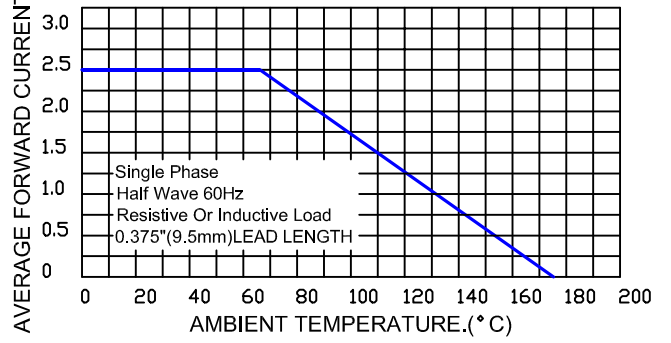


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

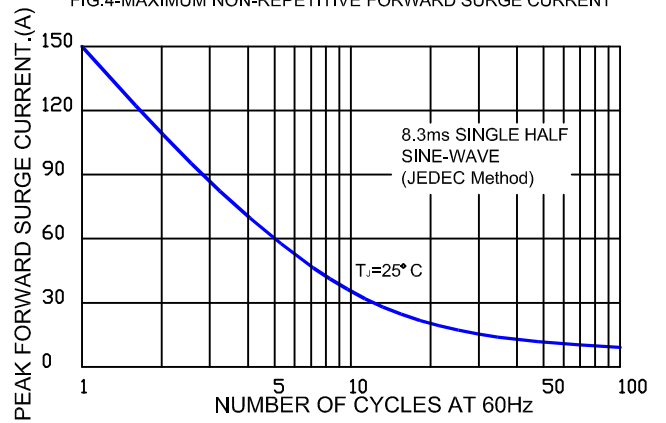


FIG.3-TYPICAL FORWARD CHARACTERISTICS

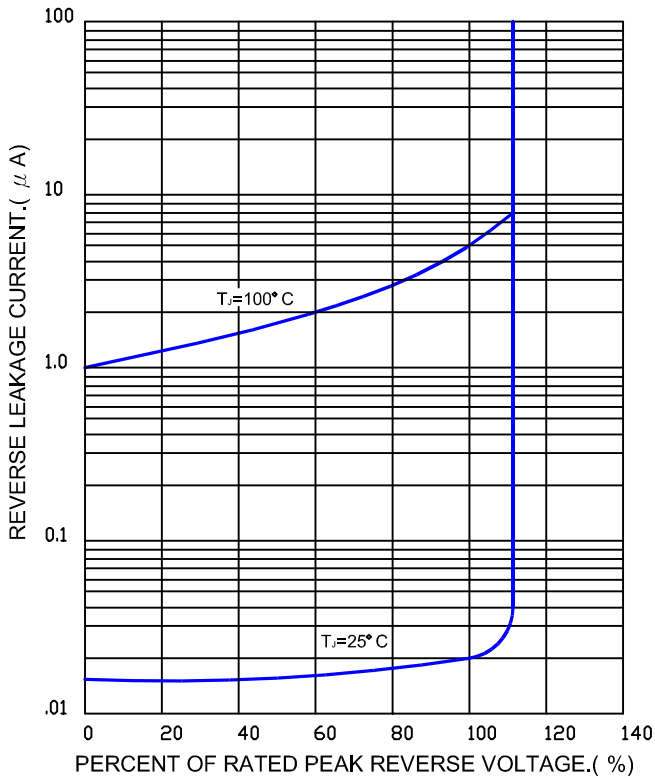


FIG.5-TYPICAL JUNCTION CAPACITANCE

