

# RL251 THRU RL257

## SILICON RECTIFIERS

### FEATURES:

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

### MECHANICAL DATA

Case : Molded plastic

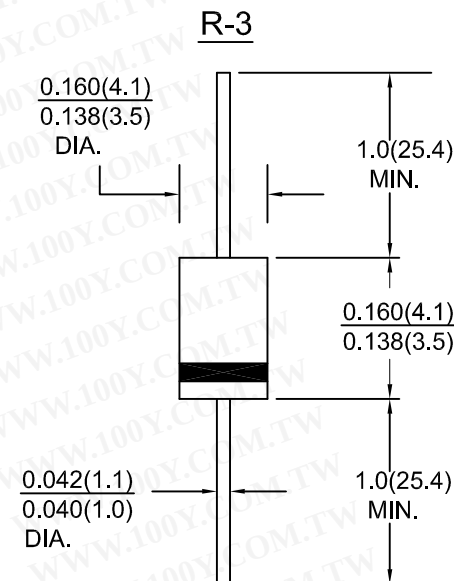
Epoxy : UL 94V-0 rate flame retardant epoxy

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<br>251   | RL<br>252 | RL<br>253 | RL<br>254 | RL<br>255 | RL<br>256 | RL<br>257 | Units |
|-----------------------------------------------------------------------------------------------------|-----------------------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Maximum recurrent peak reverse voltage                                                              | V <sub>RRM</sub>                  | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | Volts |
| Maximum RMS voltage                                                                                 | V <sub>RMS</sub>                  | 35          | 70        | 140       | 280       | 420       | 560       | 700       | Volts |
| Maximum DC blocking voltage                                                                         | V <sub>DC</sub>                   | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | Volts |
| Maximum average forward rectified current<br>.375(9.5mm) lead length at Ta=75° C                    | I <sub>O</sub>                    | 2.5         |           |           |           |           |           |           | Amps  |
| Peak forward surge current ,8.3ms single half sine-wave<br>superimposed on rated load(JEDEC Method) | I <sub>FSM</sub>                  | 150         |           |           |           |           |           |           | Amps  |
| Maximum instantaneous forward voltage drop<br>at 2.5 A                                              | V <sub>F</sub>                    | 1.0         |           |           |           |           |           |           | Volts |
| Maximum DC reverse current Ta=25° C<br>at rated DC blocking voltage Ta=125° C                       | I <sub>R</sub>                    | 5.0<br>50.0 |           |           |           |           |           |           | μ A   |
| Typical junction capacitance (note 1)                                                               | C <sub>j</sub>                    | 35          |           |           |           |           |           |           | pF    |
| Typical thermal resistance R <sub>th</sub> -JA (note 2)                                             | R <sub>th</sub> -JA               | 35          |           |           |           |           |           |           | ° C/W |
| Operating and storage temperature range                                                             | T <sub>j</sub> , T <sub>stg</sub> | -65 to +175 |           |           |           |           |           |           | ° 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

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

# RATING AND CHARACTERISTIC CURVES RL251 THRU RL257

FIG.1-TYPICAL FORWARD CHARACTERISTICS

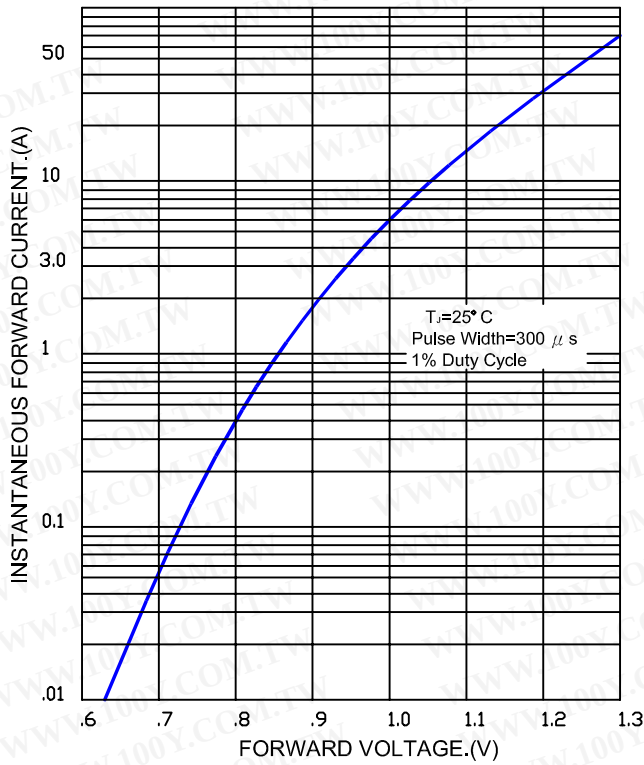


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

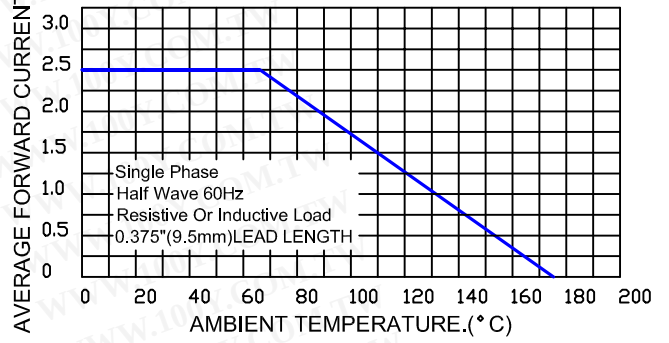


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

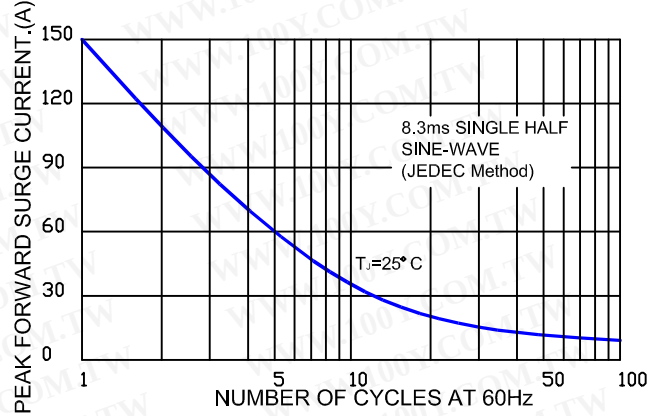


FIG.3-TYPICAL FORWARD CHARACTERISTICS

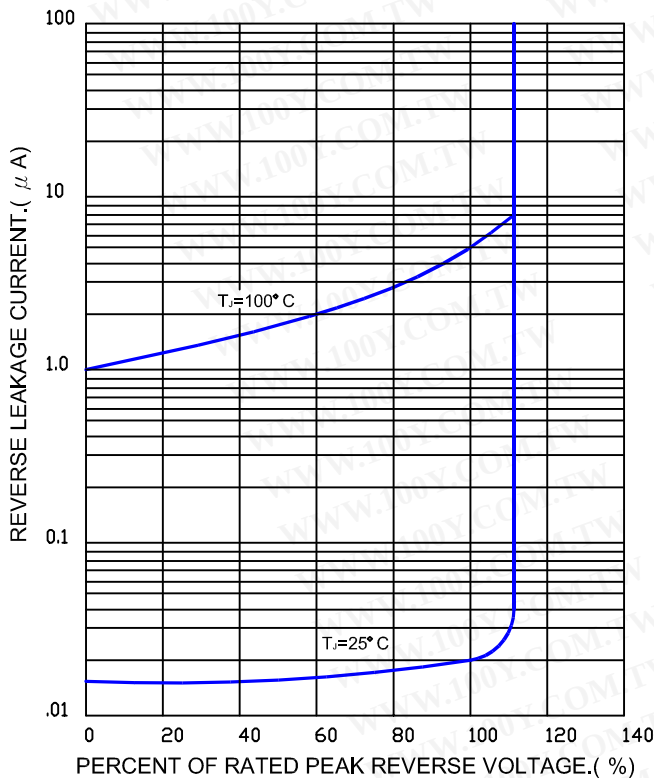


FIG.5-TYPICAL JUNCTION CAPACITANCE

