

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <h2>PLASTIC SILICON RECTIFIERS</h2> | <p>REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 2.5 Amperes</p> |
| <p>FEATURES</p> <ul style="list-style-type: none"> ● Low cost ● Diffused junction ● Low forward voltage drop ● Low reverse leakage current ● High current capability ● The plastic material carries UL recognition 94V-0 <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ● Case: JEDEC R-3 molded plastic ● Polarity: Color band denotes cathode ● Weight: 0.021 ounces , 0.58 grams ● Mounting position: Any | <p style="text-align: center;">R-3</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p> |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave ,60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | RL251 | RL252 | RL253 | RL254 | RL255 | RL256 | RL257 | UNIT |
|---------------------------------------------------------------------------------------------------------|------------------|-------------|-------|-------|-------|-------|-------|-------|------|
| 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 @T _A =70 °C | I(AV) | 2.5 | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | I _{FSM} | 90 | | | | | | | A |
| Maximum Peak Forward Voltage at 2.5A DC | V _F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C | I _R | 5.0 50 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | C _J | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note2) | R _{θJA} | 30 | | | | | | | °C/W |
| Operating Temperature Range | T _J | -55 to +125 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | °C |

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
 2. Thermal resistance junction to ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

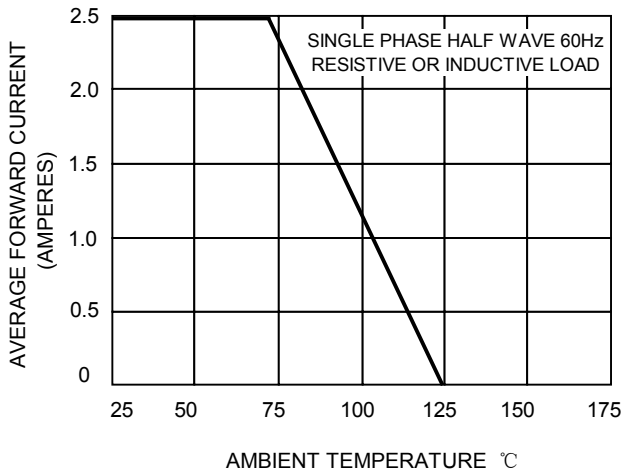


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

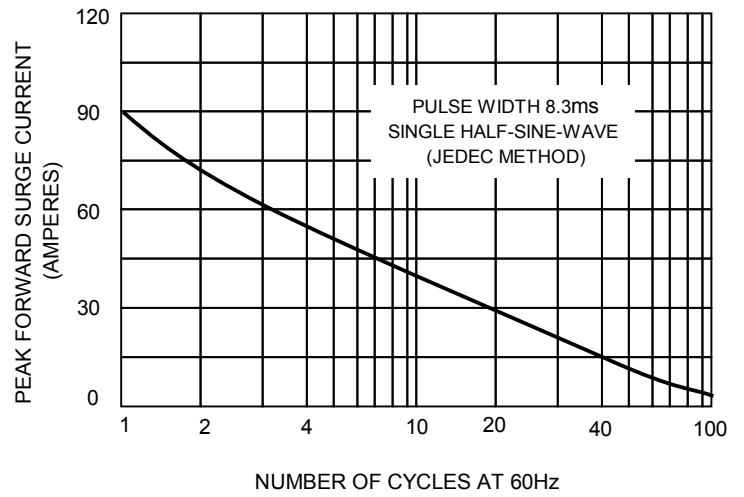


FIG.3 – TYPICAL JUNCTION CAPACITANCE

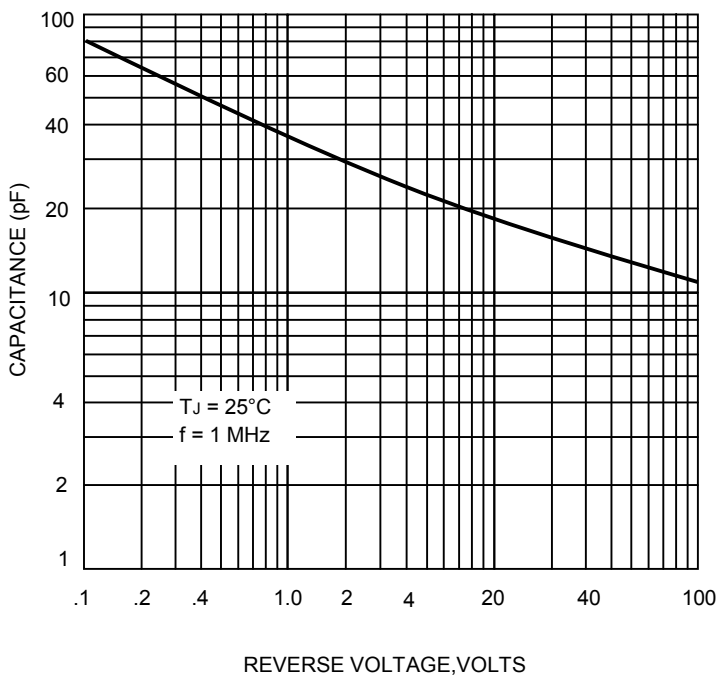


FIG.4-TYPICAL FORWARD CHARACTERISTICS

