# RU3MG

## ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

**VOLTAGE: 1000V** **CURRENT: 1.5A**

GULF SEMI

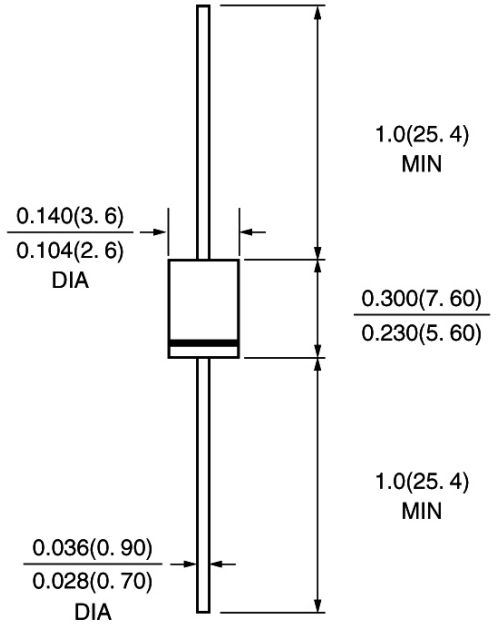
## FEATURE

Low power loss
High surge capability
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250℃/10sec/0.375″ lead length at 5 lbs tension

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E,method 208C
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any

**DO-15**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | RU3MG | units |
|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 1000 | V |
| Maximum RMS Voltage | Vrms | 700 | V |
| Maximum DC blocking Voltage | Vdc | 1000 | V |
| Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C | If(av) | 1.5 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | Ifsm | 50 | A |
| Maximum Forward Voltage at rated Forward Current and 25°C IF=1.5A | Vf | 2.5 | V |
| Maximum DC Reverse Current Ta =25°C<br>at rated DC blocking voltage Ta =125°C | Ir | 10<br>100 | μA<br>μA |
| Typical Reverse Recovery Time (Note 1) | Trr | 75 | nS |
| Typical Junction Capacitance (Note 2) | Cj | 50 | pF |
| Typical Thermal Resistance (Note 3) | R θ ja | 20 | °C /W |
| Storage and Operating Temperature Range | Tstg, Tj | -55 to +150 | °C |

Note:

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

## RATINGS AND CHARACTERISTIC CURVES RU3MG

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

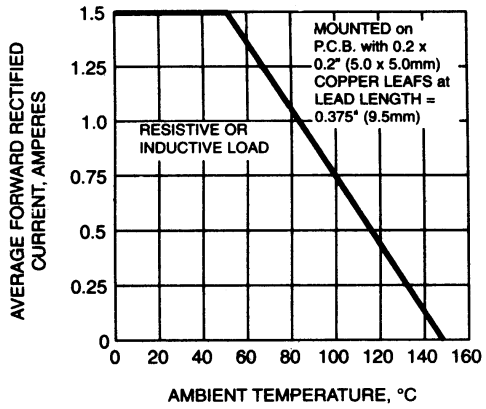



FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

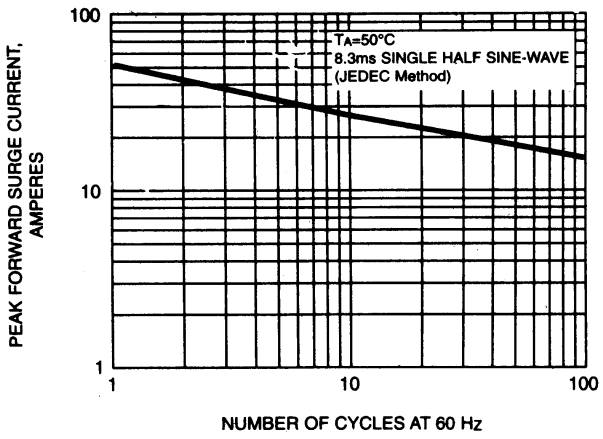



FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

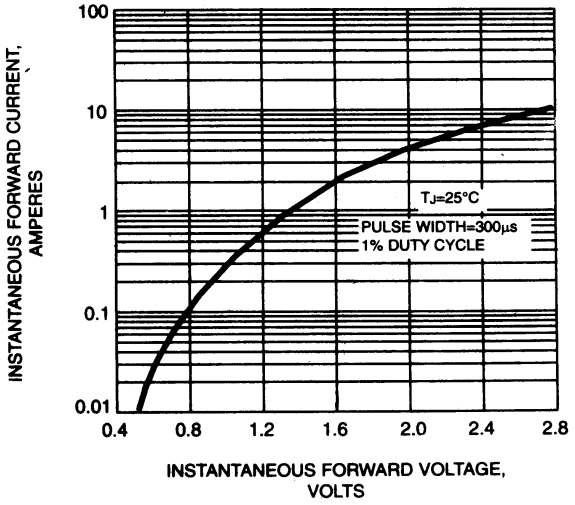



FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

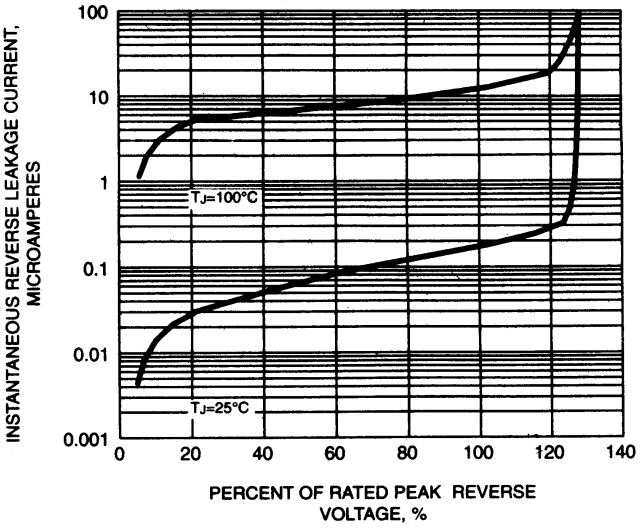
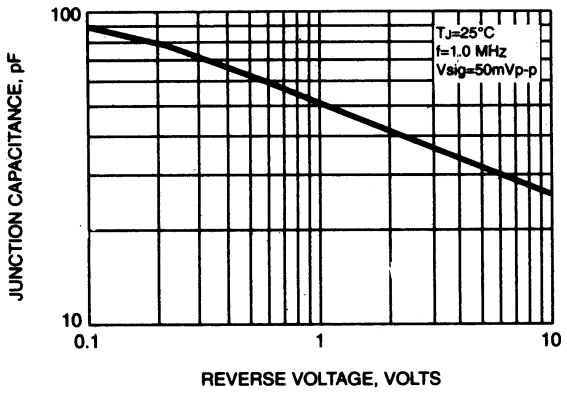



FIG. 5 - TYPICAL JUNCTION CAPACITANCE



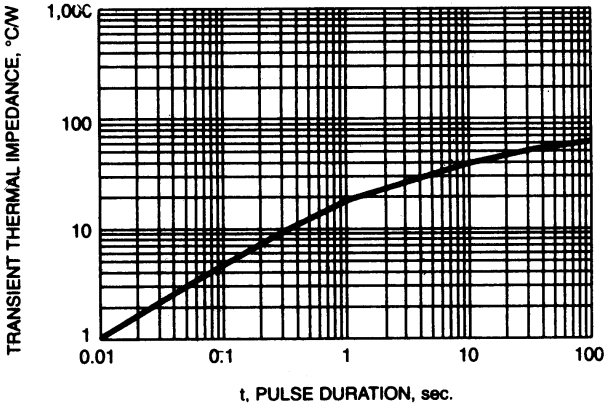


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE