




# F1A1G THRU F1A6G

1.0 AMP. GLASS PASSIVATED FAST RECOVERY RECTIFIERS



**FEATURES**

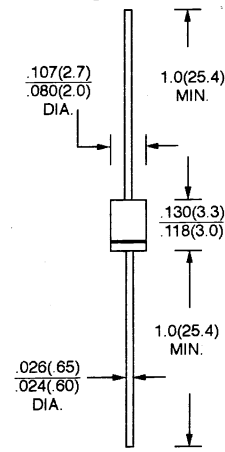
- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any
- \* Weight: 0.20 grams

**VOLTAGE RANGE**  
50 to 800 Volts  
**CURRENT**  
1.0 Amperes

**R-1**



Dimensions in inches and (millimeters)

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

| TYPE NUMBER   | SYMBOLS        | F1A1G         | F1A2G | F1A3G | F1A4G | F1A5G | F1A6G | UNITS              |
|---|----------------|---------------|-------|-------|-------|-------|-------|--------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$      | 50            | 100   | 200   | 400   | 600   | 800   | V                  |
| Maximum RMS Voltage   | $V_{RMS}$      | 35            | 70    | 140   | 280   | 420   | 560   | V                  |
| Maximum D. C Blocking Voltage   | $V_{DC}$       | 50            | 100   | 200   | 400   | 600   | 800   | V                  |
| Maximum Average Forward Rectified Current.<br>.375"(9.5mm) lead length @ $T_A = 40^\circ C$               | $I_{F(AV)}$    | 1.0           |       |       |       |       |       | A                  |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)         | $I_{FSM}$      | 25            |       |       |       |       |       | A                  |
| Maximum Instantaneous Forward Voltage at 1.0A   | $V_F$          | 1.3           |       |       |       |       |       | V                  |
| Maximum D. C Reverse Current @ $T_A = 25^\circ C$<br>at Rated D. C Blocking Voltage @ $T_A = 125^\circ C$ | $I_R$          | 5.0<br>100    |       |       |       |       |       | $\mu A$<br>$\mu A$ |
| Maximum Reverse Recovery Time( Note1)   | $T_{RR}$       | 150           |       |       | 250   | 500   |       | nS                 |
| Typical Junction Capacitance ( Note 2)  | $C_J$          | 15            |       |       |       |       |       | pF                 |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$ | - 65 to + 150 |       |       |       |       |       | $^\circ C$         |

NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ .  
2. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

## RATINGS AND CHARACTERISTIC CURVES (F1A1G THRU F1A6G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

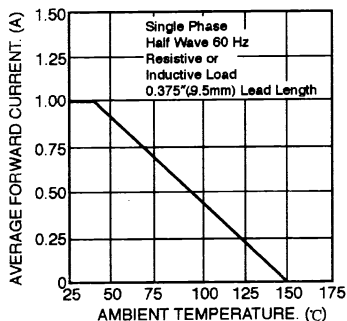


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

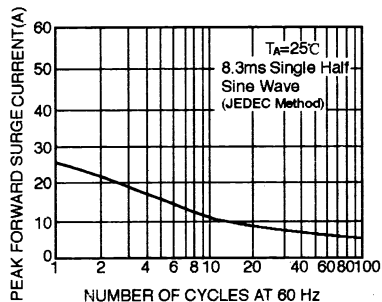


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

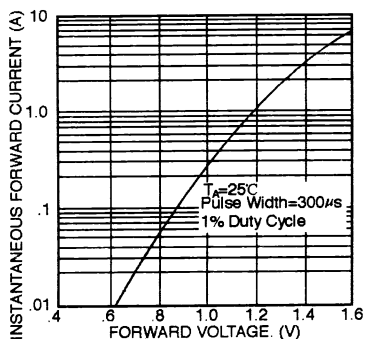


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

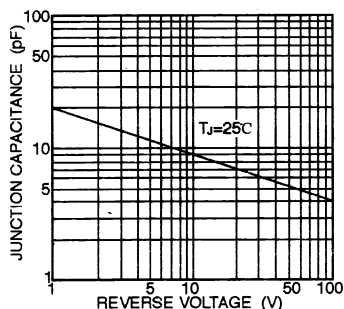


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

