

# 1F1G~1F7G

## GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

|                |                        |                |                   |
|----------------|------------------------|----------------|-------------------|
| <b>VOLTAGE</b> | <b>50 to 1000 Volt</b> | <b>CURRENT</b> | <b>1.0 Ampere</b> |
|----------------|------------------------|----------------|-------------------|

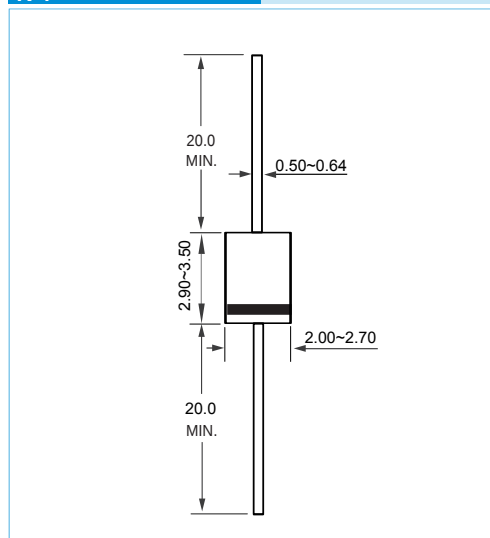
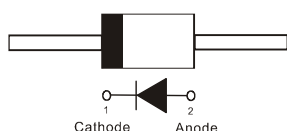
**R-1** Unit:mm

### FEATURES

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

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER                                                                                                       | SYMBOL             | 1F1G         | 1F2G | 1F3G | 1F4G | 1F5G | 1F6G | 1F7G | UNITS |
|-----------------------------------------------------------------------------------------------------------------|--------------------|--------------|------|------|------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                          | V <sub>RRM</sub>   | 50           | 100  | 200  | 400  | 600  | 800  | 1000 | V     |
| Maximum RMS Voltage                                                                                             | V <sub>RMS</sub>   | 35           | 70   | 140  | 280  | 420  | 560  | 700  | V     |
| Maximum DC Blocking Voltage                                                                                     | V <sub>DC</sub>    | 50           | 100  | 200  | 400  | 600  | 800  | 1000 | V     |
| Maximum Average Forward Current (see FIG.1)                                                                     | I <sub>F(AV)</sub> | 1.0          |      |      |      |      |      |      | A     |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load                             | I <sub>FSM</sub>   | 30           |      |      |      |      |      |      | A     |
| Maximum Forward Voltage at 1 A                                                                                  | V <sub>F</sub>     | 1.3          |      |      |      |      |      |      | V     |
| Maximum DC Reverse Current at<br>Rated DC Blocking Voltage<br>T <sub>J</sub> = 25 °C<br>T <sub>J</sub> = 100 °C | I <sub>R</sub>     | 1.0<br>50    |      |      |      |      |      |      | μA    |
| Typical Junction Capacitance                                                                                    | C <sub>J</sub>     | 15           |      |      |      |      |      |      | pF    |
| Maximum Reverse Recovery Time                                                                                   | t <sub>rr</sub>    | 150          |      |      |      | 250  | 500  |      | ns    |
| Operating Junction Temperature Range                                                                            | T <sub>J</sub>     | -55 to + 125 |      |      |      |      |      |      | °C    |
| Storage Temperature Range                                                                                       | T <sub>STG</sub>   | -55 to + 150 |      |      |      |      |      |      | °C    |

**Notes:** 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $IRR=0.25\text{A}$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

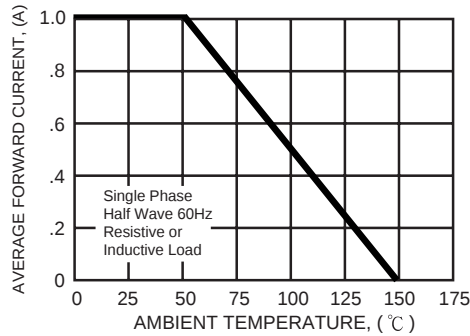


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

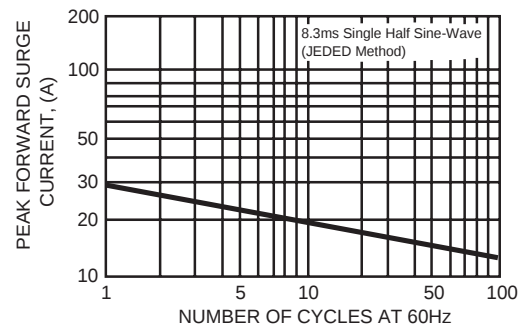


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

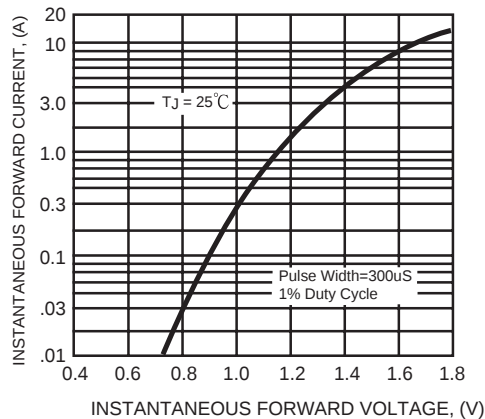


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

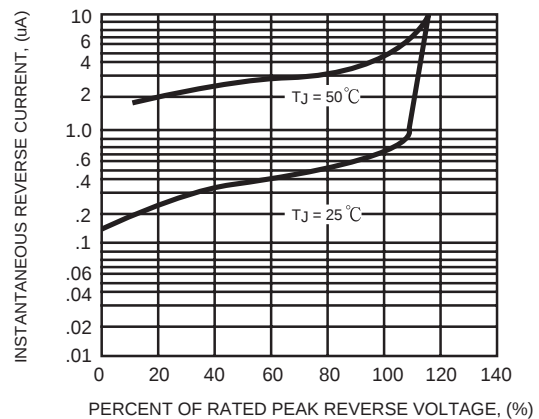


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

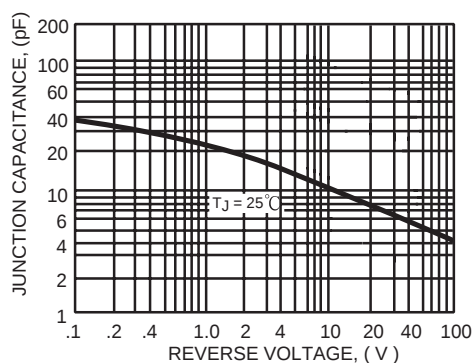
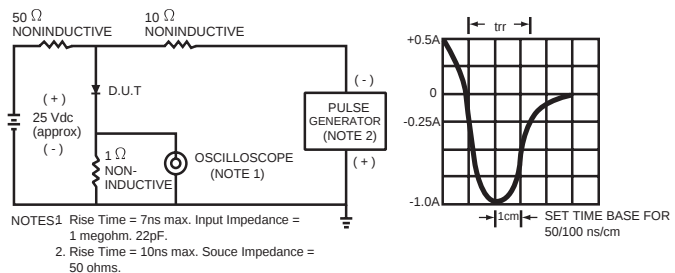


FIG. 6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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### Ordering Information

- Packing information

| 1F1G~1F7G      | Packing Quantity    |
|----------------|---------------------|
| Tape&Reel      | 13 Inch; 5kpcs/Reel |
| Ammo Packing   | 5kpcs/Ammo Box      |
| Bulk(Tube/Box) | 1kpcs/Box           |