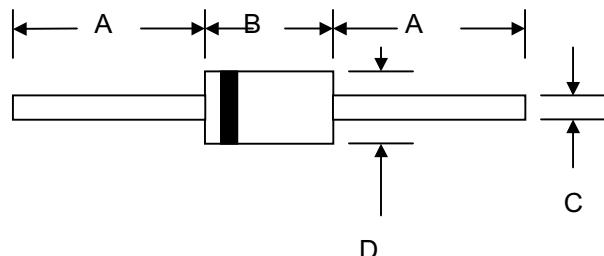


Data Sheet 2722, Rev. -

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

| DO-15 | | | | |
|-------|-------|-------|---------|-------|
| Dim | Min | Max | Min | Max |
| A | 25.4 | — | 1.000 | — |
| B | 5.50 | 7.62 | 0.217 | 0.300 |
| C | 0.71 | 0.864 | 0.028 | 0.034 |
| D | 2.60 | 3.60 | 0.102 | 0.142 |
| | In mm | | In inch | |

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | FR151G | FR152G | FR153G | FR154G | FR155G | FR156G | FR157G | Unit |
|---|---------------------------------|-------------|--------|--------|--------|--------|--------|------------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_R(\text{RMS})$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$ | I_o | 1.5 | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50 | | | | | | A | |
| Forward Voltage @ $I_F = 1.5\text{A}$ | V_{FM} | 1.3 | | | | | | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 5.0 100 | | | | | | μA | |
| Reverse Recovery Time (Note 2) | t_{rr} | 150 | | | 250 | 500 | | | nS |
| Typical Junction Capacitance (Note 3) | C_j | 25 | | | | | | pF | |
| Operating Temperature Range | T_j | -65 to +150 | | | | | | $^\circ\text{C}$ | |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | $^\circ\text{C}$ | |

***Glass passivated forms are available upon request**

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$. See figure 5.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

SENSITRON
SEMICONDUCTOR

Data Sheet 2722, Rev. -

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

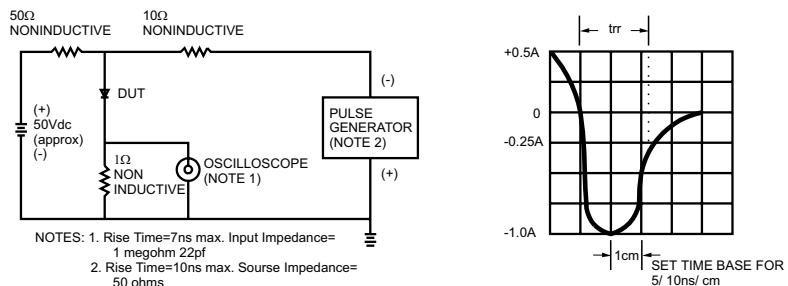


FIG.3- TYPICAL FORWARD CHARACTERISTICS

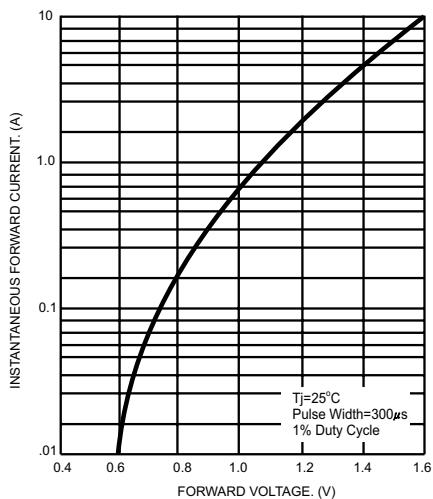


FIG.2- TYPICAL JUNCTION CAPACITANCE

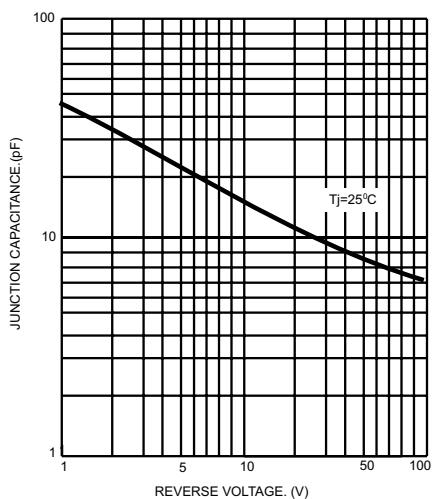


FIG.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

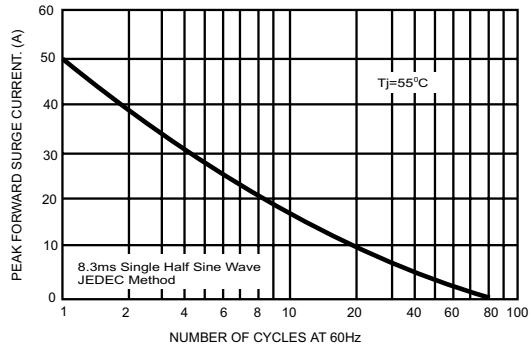


FIG.4- MAXIMUM FORWARD CURRENT DERATING CURVE

