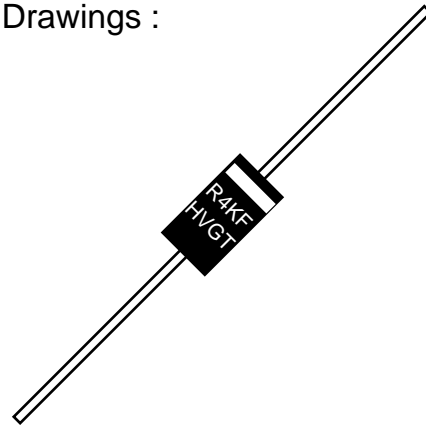




High reliability resin molded type high voltage diode in small size package which is sealed a multilayered mesa type silicon chip by epoxy resin.

### Outline Drawings :



### Features

- \*Fast switching
- \*Low leakage
- \*High reliability
- \*High current capability
- \*High surge capability

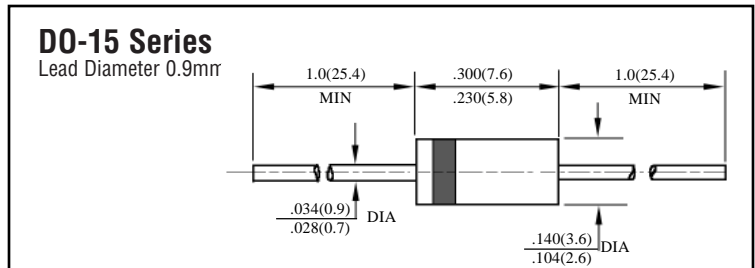
### Applications

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.4 gram

### Maximum Ratings and Characteristics

#### Absolute Maximum Ratings

| Items                                | Symbols   | Condition                                 | R4000F      | Units              |
|--------------------------------------|-----------|---|-------------|--------------------|
| Repetitive Peak Reverse Voltage      | $V_{RRM}$ | $T_a=25^{\circ}\text{C}$ ,                | 4.0         | kV                 |
| Average Output Current               | $I_o$     | $T_a=25^{\circ}\text{C}$ , Resistive Load | 200         | mA                 |
| Surge Current                        | $I_{FSM}$ | $T_a=25^{\circ}\text{C}$ , 8.3 ms         | 30          | A <sub>peak</sub>  |
| Junction Temperature                 | $T_j$     |   | 125         | $^{\circ}\text{C}$ |
| Allowable Operation Case Temperature | $T_c$     |   | 125         | $^{\circ}\text{C}$ |
| Storage Temperature                  | $T_{stg}$ |   | -65 to +175 | $^{\circ}\text{C}$ |



#### Electrical Characteristics ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

| Items                         | Symbols  | Conditions  | R4000F | Units         |
|-------------------------------|----------|---|--------|---------------|
| Maximum Forward Voltage Drop  | $V_F$    | at $25^{\circ}\text{C}$ , $I_F = I_{F(AV)}$   | 5.0    | V             |
| Maximum Reverse Current       | IR1      | at $25^{\circ}\text{C}$ , $V_R = V_{RRM}$   | 5.0    | $\mu\text{A}$ |
|                               | IR2      | at $100^{\circ}\text{C}$ , $V_R = V_{RRM}$  | 100    | $\mu\text{A}$ |
| Maximum Reverse Recovery Time | $T_{rr}$ | at $25^{\circ}\text{C}$ ; $I_F = 0.5\text{A}$ ; $I_R = 1.0\text{A}$ ; $I_{rr} = 0.25\text{A}$ ; | 500    | nS            |
| Junction Capacitance          | $C_j$    | at $25^{\circ}\text{C}$ ; $V_R = 0\text{V}$ , $f = 1\text{MHz}$                                 | 7.0    | pF            |



### ■ RATING AND CHARACTERISTIC CURVES:

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

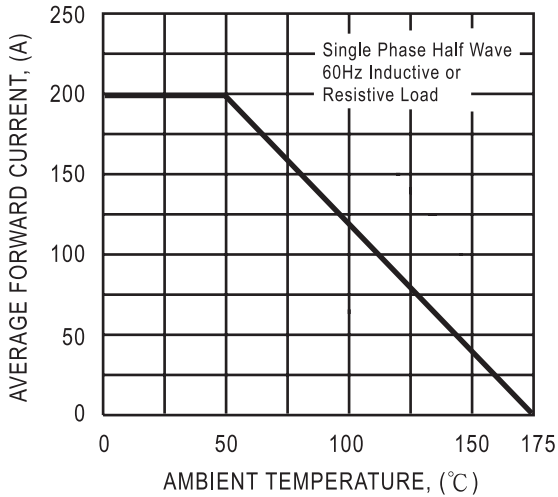


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

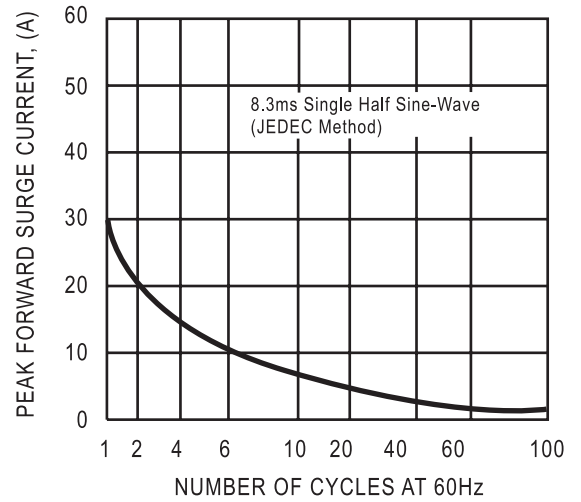
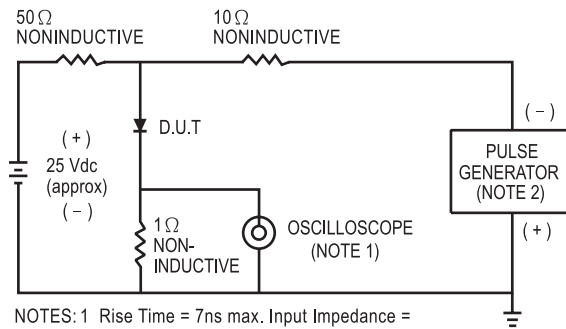


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm. 22 pF.  
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

