

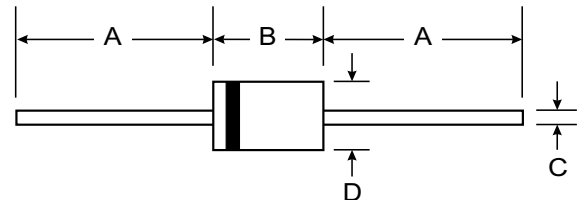
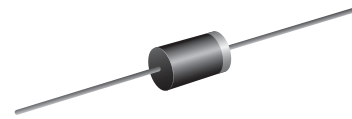
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 2.0 A**

### Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Super fast recovery time

### Mechanical Data

- Case : DO-15, Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram



| DO-15                |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 25.40 | —     |
| B                    | 5.50  | 7.62  |
| C                    | 0.686 | 0.889 |
| D                    | 2.60  | 3.60  |
| All Dimensions in mm |       |       |

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

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

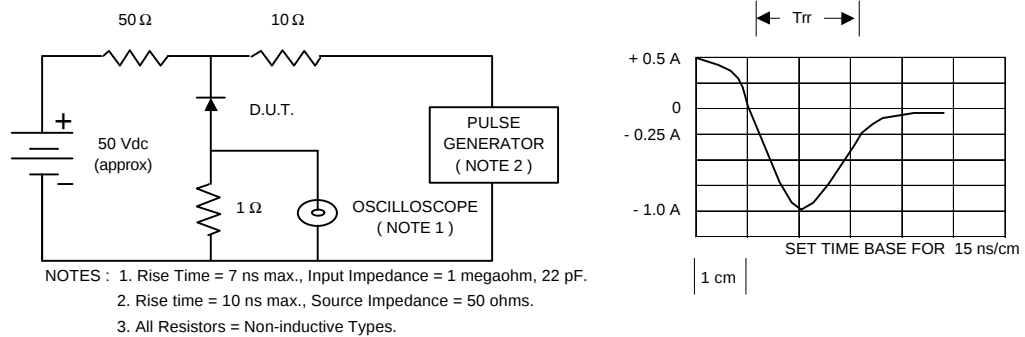
| Characteristic                                                                                          | SYMBOL           | SF21          | SF22 | SF23 | SF24 | SF25 | SF26 | SF27 | SF28 | SF29 | UNITS |
|---------------------------------------------------------------------------------------------------------|------------------|---------------|------|------|------|------|------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | V <sub>RRM</sub> | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | Volts |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub> | 35            | 70   | 105  | 140  | 210  | 280  | 420  | 560  | 700  | Volts |
| Maximum DC Blocking Voltage                                                                             | V <sub>DC</sub>  | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | Volts |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length<br>Ta = 55 °C                              | IF(AV)           | 2.0           |      |      |      |      |      |      |      |      | Amps. |
| Peak Forward Surge Current,<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | IFSM             | 75            |      |      |      |      |      |      |      |      | Amps. |
| Maximum Peak Forward Voltage at IF = 2.0 A.                                                             | VF               | 0.95          |      |      |      | 1.7  |      |      | 2.2  |      | Volts |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage                                              | IR               | 5.0           |      |      |      |      |      |      | 20   |      | μA    |
| Maximum Reverse Recovery Time ( Note 1 )                                                                | Trr              | 35            |      |      |      |      |      |      |      |      | ns    |
| Typical Junction Capacitance ( Note 2 )                                                                 | CJ               | 50            |      |      |      |      |      |      |      |      | pf    |
| Junction Temperature Range                                                                              | TJ               | - 65 to + 150 |      |      |      |      |      |      |      |      | °C    |
| Storage Temperature Range                                                                               | TSTG             | - 65 to + 150 |      |      |      |      |      |      |      |      | °C    |

### Notes :

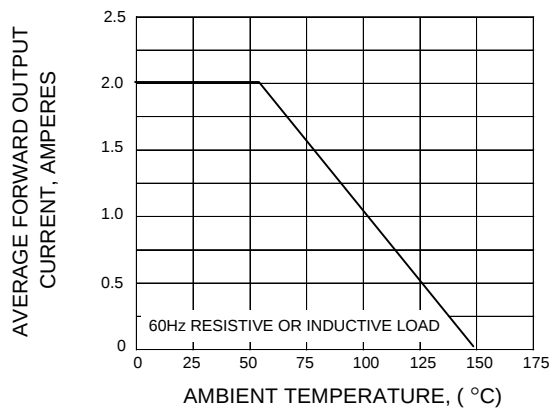
- ( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>dc</sub>

## RATING AND CHARACTERISTIC CURVES ( SF21 - SF29 )

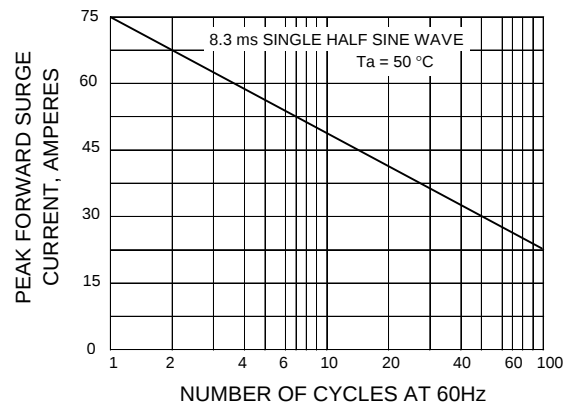
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



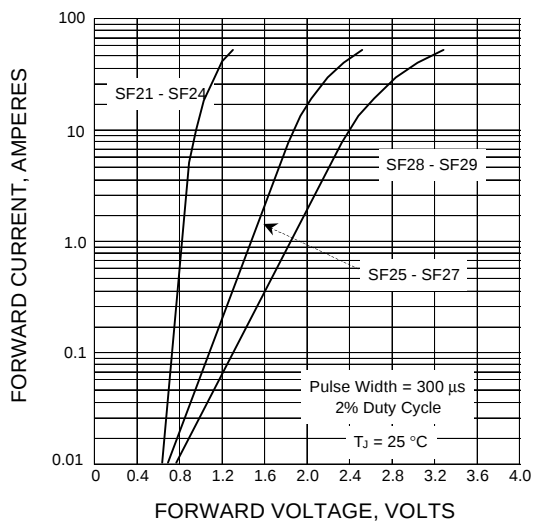
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

