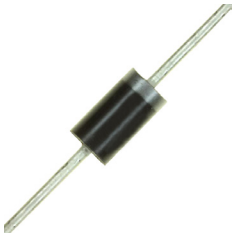


# Super Fast Recovery Rectifier Diodes

## $V_{RRM}$ - 100 Volts to 600 Volts, 3A

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**RoHS  
Compliant**



### Features

- Glass Passivated (GPP)
- Fast switching for high efficiency
- Low cost
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Lead free
- Meet UL flammability classification 94V-0
- Case style: DO-201AA (DO-27) molded plastic

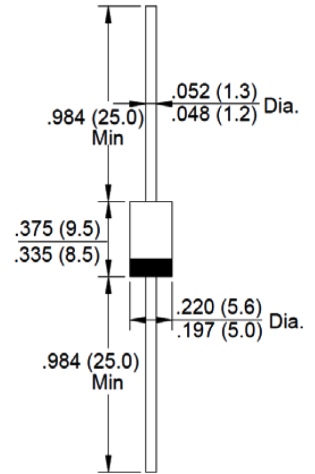
### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

DO-201AA (DO-27)



Dimensions : Inches (Millimetres)

| Characteristics  | Symbol          | SF32G       | SF36G | SF38G | Unit               |
|--|-----------------|-------------|-------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 100         | 400   | 600   | V                  |
| Maximum RMS Voltage  | $V_{RMS}$       | 70          | 280   | 420   |                    |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 100         | 400   | 600   |                    |
| Maximum Average Forward Rectified Current @ $T_A = 55^\circ\text{C}$                               | $I_{(AV)}$      | 3           |       |       | A                  |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$       | 125         |       |       | A                  |
| Peak Forward Voltage at 3A DC (Note1)  | $V_F$           | 0.95        | 1.3   | 1.7   | V                  |
| Max. DC Reverse Current @ $T_J=25^\circ\text{C}$   | $I_R$           | 5           |       |       | $\mu\text{A}$      |
| Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$  |                 | 100         |       |       |                    |
| Maximum Reverse Recovery Time (Note 2)   | $T_{RR}$        | 35          |       |       | nS                 |
| Typical Junction Capacitance (Note 3)  | $C_J$           | 70          | 45    |       | pF                 |
| Typical Thermal Resistance Junction to Ambient   | $R_{\theta JA}$ | 20          |       |       | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range   | $T_J$           | -65 to +150 |       |       | $^\circ\text{C}$   |
| Storage Temperature Range  | $T_{STG}$       |             |       |       |                    |

### Notes:

1. 300 $\mu\text{S}$  pulse width, 2% duty cycle
2. Reverse with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{RR} = 0.25\text{A}$
3. Measured at 1MHz and applied reverse voltage of 4V DC
4. The typical data above is for reference only

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# Super Fast Recovery Rectifier Diodes

## V<sub>RRM</sub> - 100 Volts to 600 Volts, 3A

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### Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

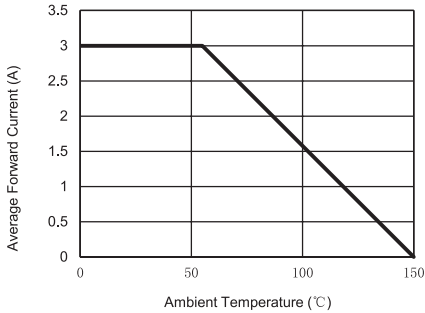


Fig. 2 - Maximum Non-Repetitive Surge Current

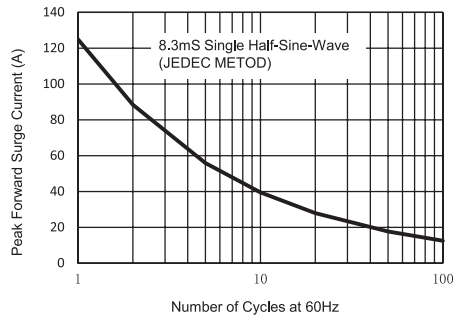


Fig. 3 - Typical Junction Capacitance

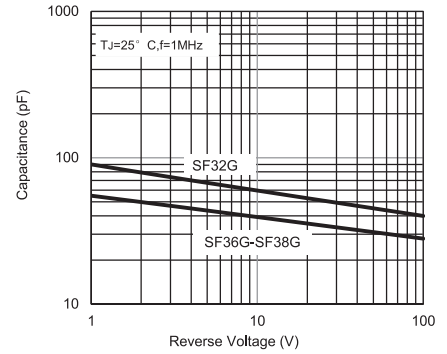


Fig. 4 - Typical Forward Characteristics

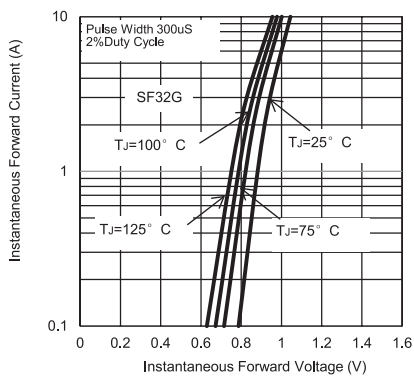


Fig. 5 - Typical Forward Characteristics

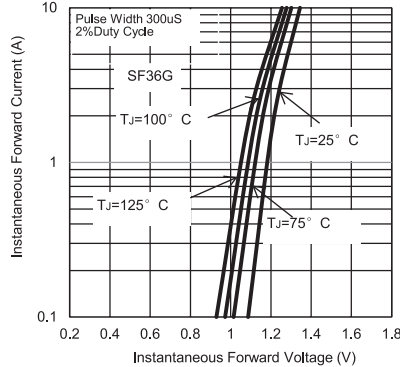
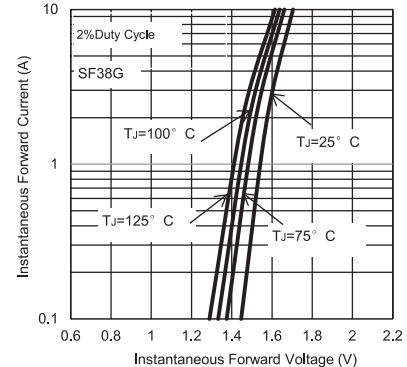


Fig. 6 - Typical Forward Characteristics



### Part Number Table

| Description   | Part Number |
|---|-------------|
| Rectifier Diode, Super Fast, 100V, 3A, DO-201AA (DO-27) | SF32G       |
| Rectifier Diode, Super Fast, 400V, 3A, DO-201AA (DO-27) | SF36G       |
| Rectifier Diode, Super Fast, 600V, 3A, DO-201AA (DO-27) | SF38G       |

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