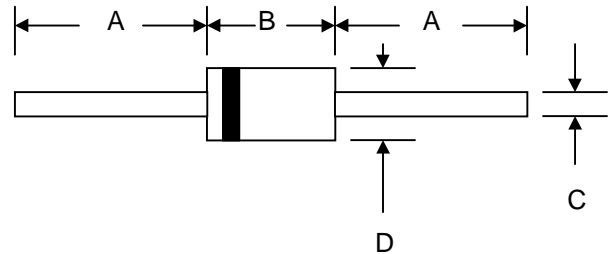


### Features

- 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: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Epoxy: UL 94V-O rate flame retardant

| DO-201AD             |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 8.50 | 9.50 |
| C                    | 1.20 | 1.30 |
| D                    | 5.0  | 5.60 |
| All Dimensions in mm |      |      |

### 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       | SF61        | SF62 | SF63 | SF64 | SF65 | SF66 | Unit             |
|---|--------------|-------------|------|------|------|------|------|------------------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$    |             |      |      |      |      |      |                  |
| Working Peak Reverse Voltage  | $V_{RWM}$    | 50          | 100  | 150  | 200  | 300  | 400  | V                |
| DC Blocking Voltage   | $V_R$        |             |      |      |      |      |      |                  |
| RMS Reverse Voltage   | $V_{R(RMS)}$ | 35          | 70   | 105  | 140  | 210  | 280  | V                |
| Average Rectified Output Current (Note 1)   | $I_O$        | 6.0         |      |      |      |      |      | A                |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | $I_{FSM}$    | 150         |      |      |      |      |      | A                |
| Forward Voltage @ $I_F = 6.0\text{A}$   | $V_{FM}$     | 0.975       |      |      |      | 1.3  |      | V                |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$           | $I_{RM}$     | 5.0         |      |      |      | 100  |      | $\mu\text{A}$    |
| Reverse Recovery Time (Note 2)  | $t_{rr}$     | 35          |      |      |      |      |      | nS               |
| Typical Junction Capacitance (Note 3)   | $C_j$        | 120         |      |      |      | 60   |      | pF               |
| Operating Temperature Range   | $T_j$        | -65 to +125 |      |      |      |      |      | $^\circ\text{C}$ |
| 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.

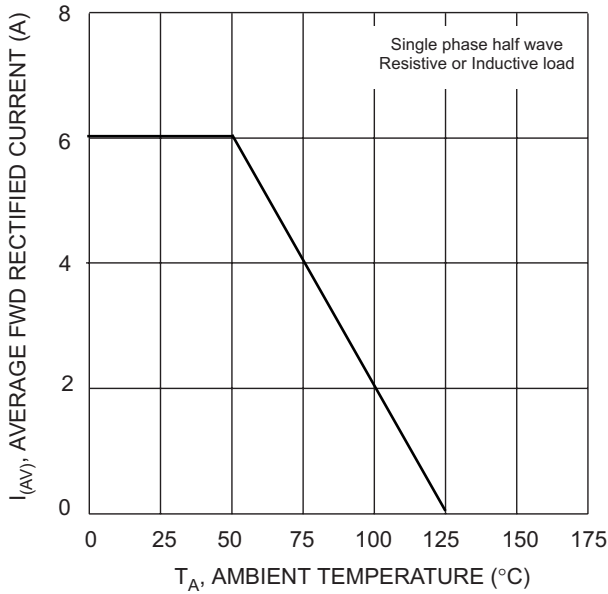


Fig. 1 Forward Current Derating Curve

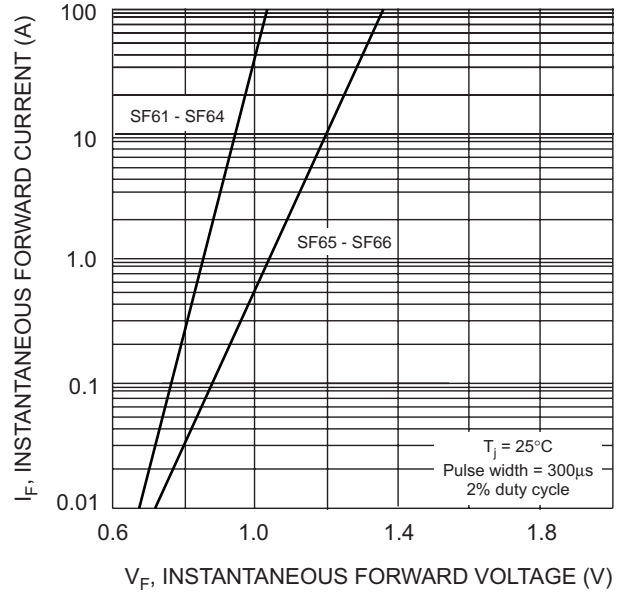


Fig. 2 Typical Forward Characteristics

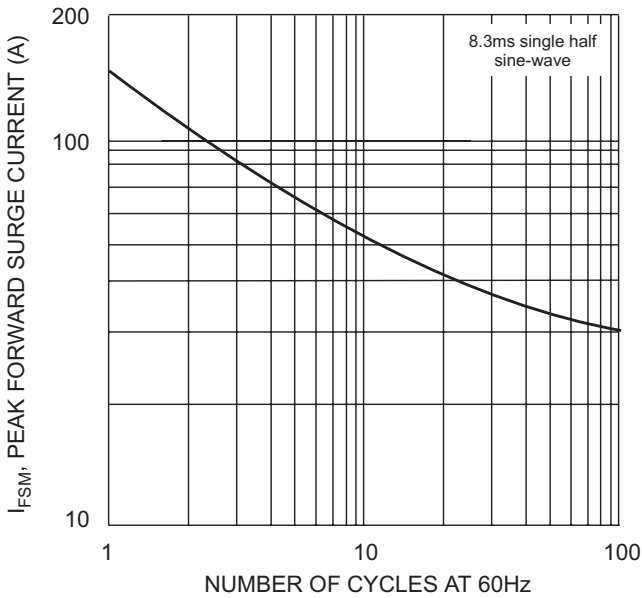


Fig. 3 Peak Forward Surge Current

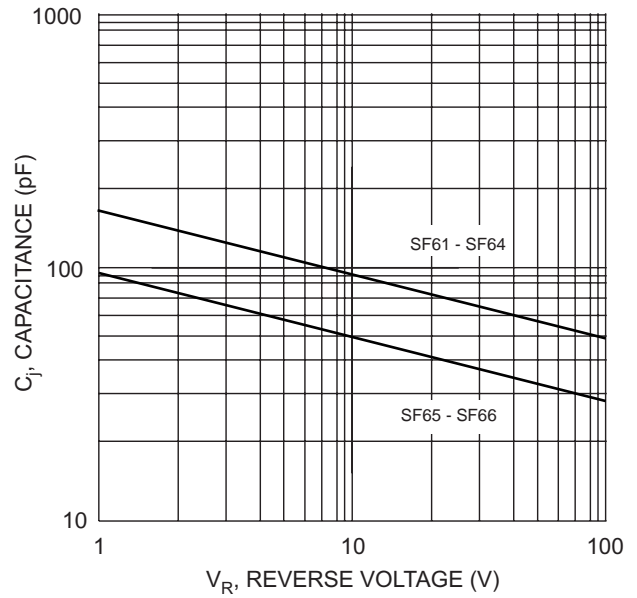
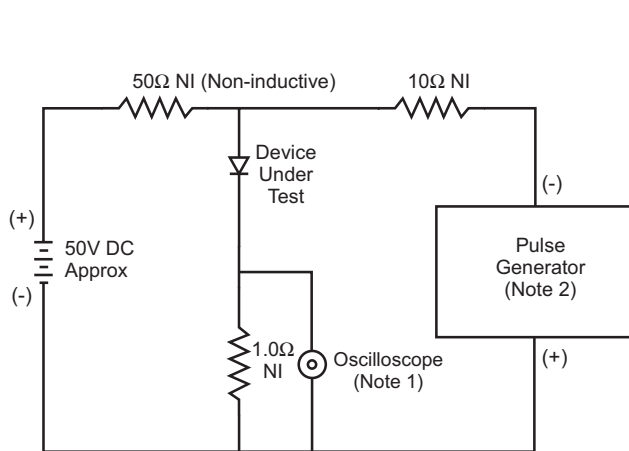


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50Ω.

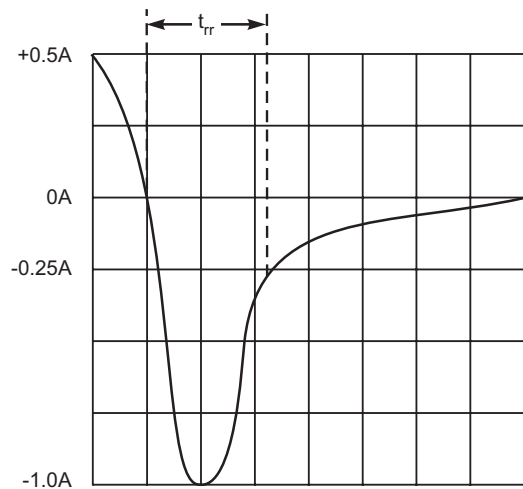


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## ORDERING INFORMATION

| Product No.♦   | Package Type | Shipping Quantity |
|----------------|--------------|-------------------|
| SF61-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF61-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF61           | DO-201AD     | 500 Units/Box     |
| SF62-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF62-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF62           | DO-201AD     | 500 Units/Box     |
| SF63-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF63-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF63           | DO-201AD     | 500 Units/Box     |
| SF64-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF64-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF64           | DO-201AD     | 500 Units/Box     |
| SF65-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF65-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF65           | DO-201AD     | 500 Units/Box     |
| SF66-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SF66-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SF66           | DO-201AD     | 500 Units/Box     |

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** http://www.wontop.com

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