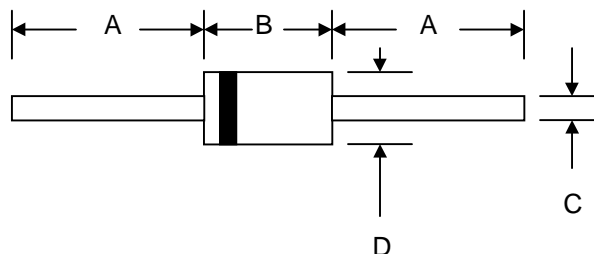


### Features

- 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



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<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	SF51	SF52	SF53	SF54	SF55	SF56	SF57	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	150	200	300	400	600	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @T <sub>A</sub> = 50°C	I <sub>O</sub>	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							A
Forward Voltage @I <sub>F</sub> = 5.0A	V <sub>FM</sub>	0.95				1.3		1.7	V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 100							μA
Reverse Recovery Time (Note 2)	t <sub>rr</sub>	35							nS
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	110				50			pF
Operating Temperature Range	T <sub>j</sub>	-65 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150							°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<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A. See figure 5.  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

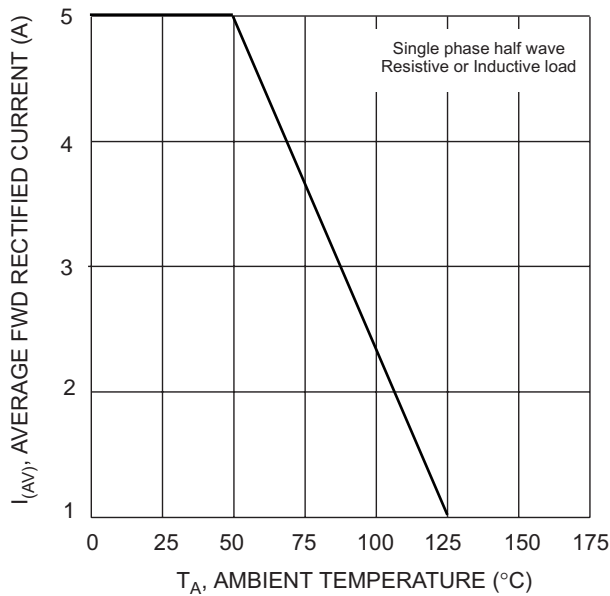


Fig. 1 Forward Current Derating Curve

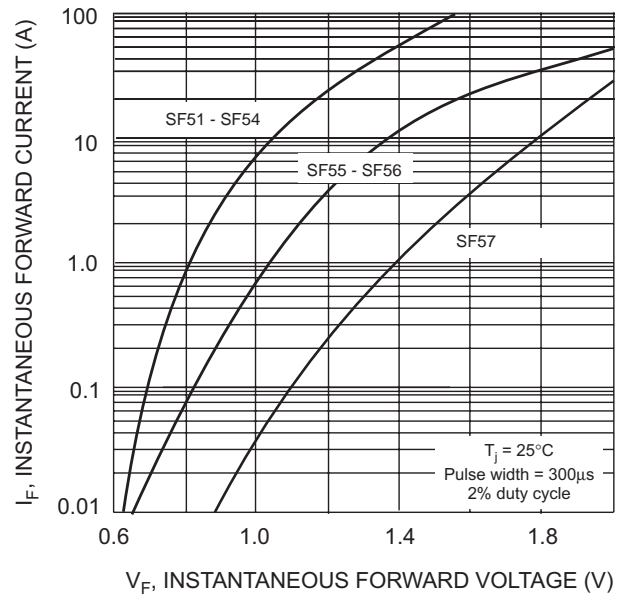


Fig. 2 Typical Forward Characteristics

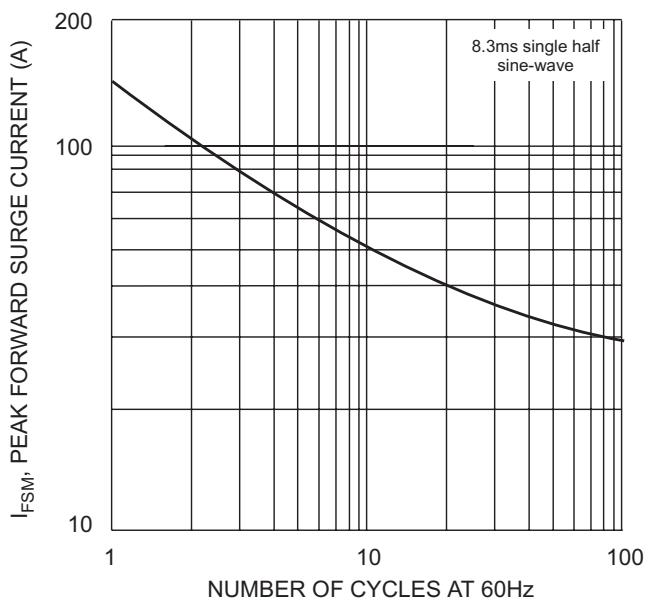


Fig. 3 Peak Forward Surge Current

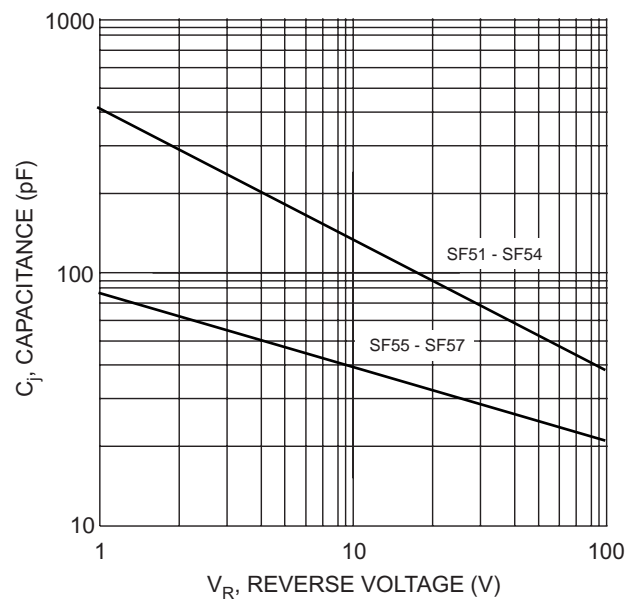
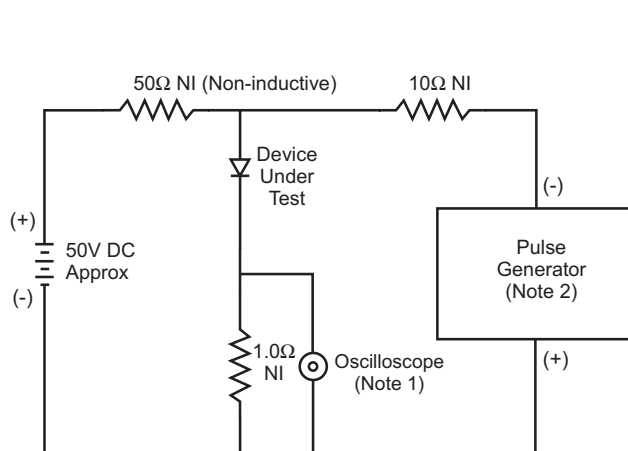
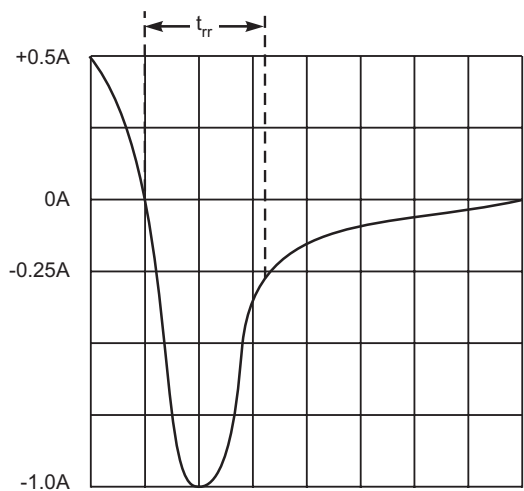


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0M $\Omega$ , 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50 $\Omega$ .



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
SF51-T3	DO-201AD	1200/Tape & Reel
<b>SF51-TB</b>	DO-201AD	1200/Tape & Box
SF51	DO-201AD	500 Units/Box
SF52-T3	DO-201AD	1200/Tape & Reel
<b>SF52-TB</b>	DO-201AD	1200/Tape & Box
SF52	DO-201AD	500 Units/Box
SF53-T3	DO-201AD	1200/Tape & Reel
<b>SF53-TB</b>	DO-201AD	1200/Tape & Box
SF53	DO-201AD	500 Units/Box
SF54-T3	DO-201AD	1200/Tape & Reel
<b>SF54-TB</b>	DO-201AD	1200/Tape & Box
SF54	DO-201AD	500 Units/Box
SF55-T3	DO-201AD	1200/Tape & Reel
<b>SF55-TB</b>	DO-201AD	1200/Tape & Box
SF55	DO-201AD	500 Units/Box
SF56-T3	DO-201AD	1200/Tape & Reel
<b>SF56-TB</b>	DO-201AD	1200/Tape & Box
SF56	DO-201AD	500 Units/Box
SF57-T3	DO-201AD	1200/Tape & Reel
<b>SF57-TB</b>	DO-201AD	1200/Tape & Box
SF57	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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