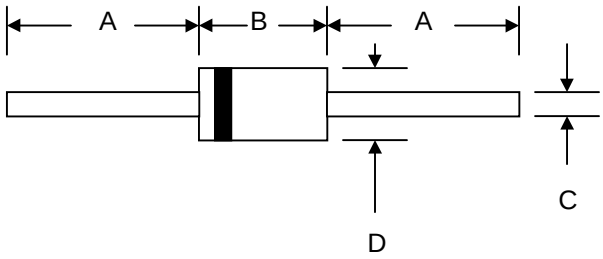
SF31 – SF37

3.0A SUPER-FAST RECTIFIER

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



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		

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

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	SF31	SF32	SF33	SF34	SF35	SF36	SF37	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @T_A = 50°C	I_O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							A
Forward Voltage @I_F = 3.0A	V_{FM}	0.95				1.3		1.7	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	5.0 100							µA
Reverse Recovery Time (Note 2)	t_{rr}	35							nS
Typical Junction Capacitance (Note 3)	C_j	100				80			pF
Operating Temperature Range	T_j	-65 to +125							°C
Storage Temperature Range	T_{STG}	-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 IF = 0.5A, IR = 1.0A, IRR = 0.25A. See figure 5.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

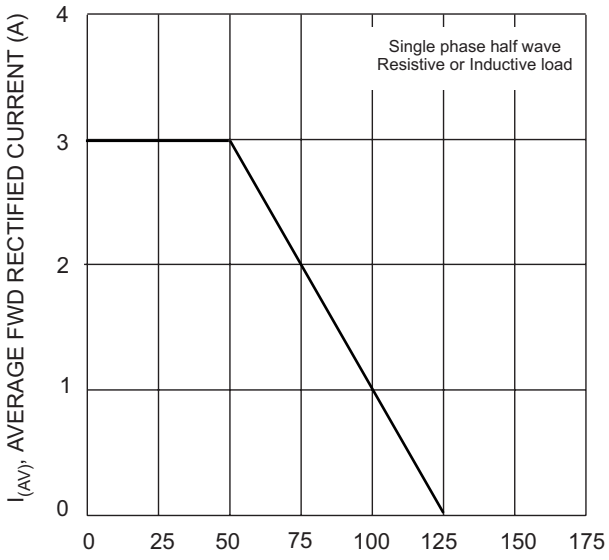


Fig. 1 Forward Current Derating Curve

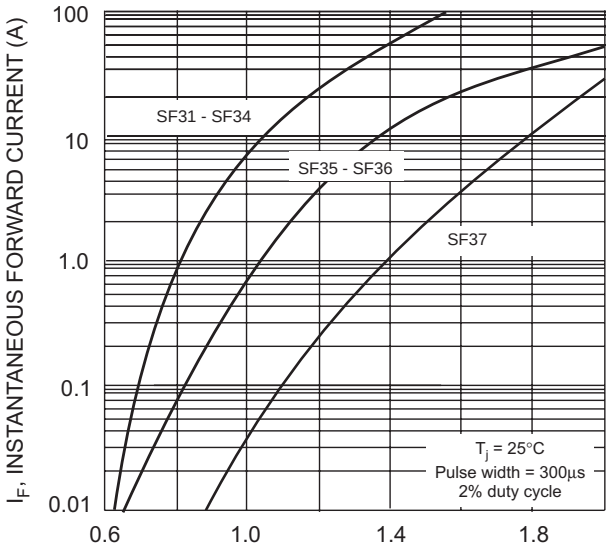


Fig. 2 Typical Forward Characteristics

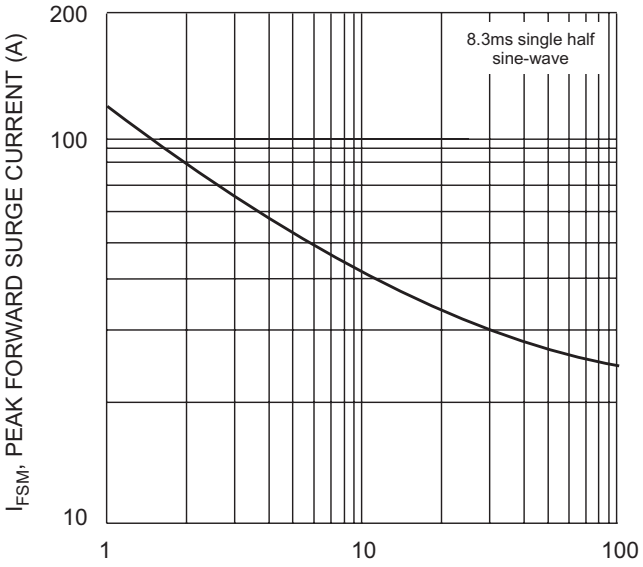


Fig. 3 Peak Forward Surge Current

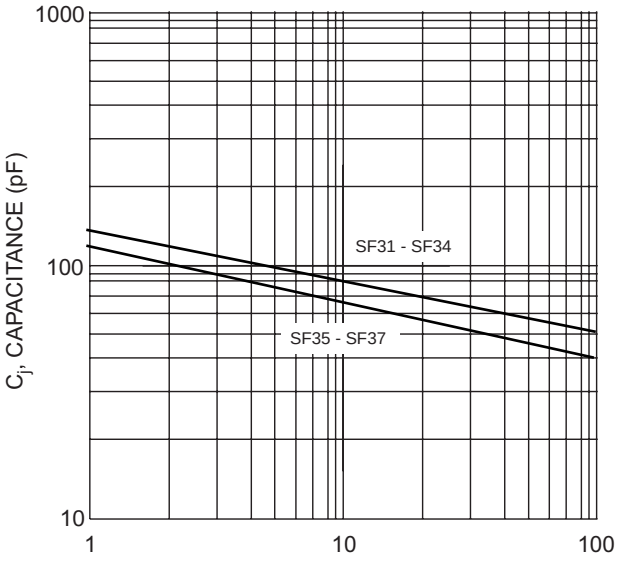
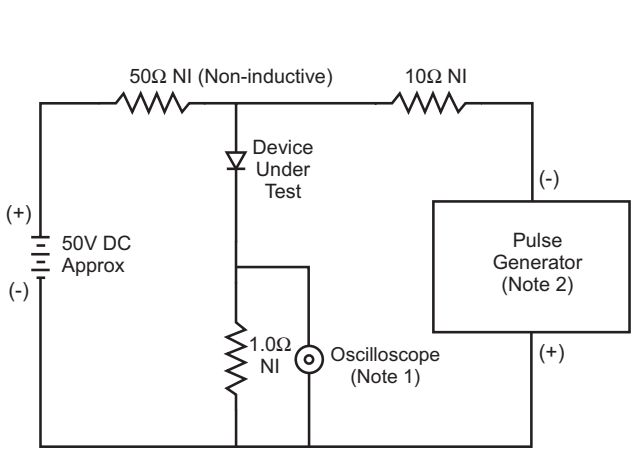
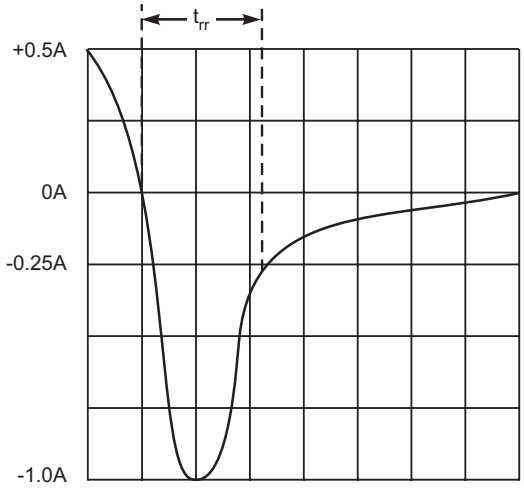


Fig. 4 Typical Junction Capacitance



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



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SF31-T3	DO-201AD	1200/Tape & Reel
SF31-TB	DO-201AD	1200/Tape & Box
SF31	DO-201AD	500 Units/Box
SF32-T3	DO-201AD	1200/Tape & Reel
SF32-TB	DO-201AD	1200/Tape & Box
SF32	DO-201AD	500 Units/Box
SF33-T3	DO-201AD	1200/Tape & Reel
SF33-TB	DO-201AD	1200/Tape & Box
SF33	DO-201AD	500 Units/Box
SF34-T3	DO-201AD	1200/Tape & Reel
SF34-TB	DO-201AD	1200/Tape & Box
SF34	DO-201AD	500 Units/Box
SF35-T3	DO-201AD	1200/Tape & Reel
SF35-TB	DO-201AD	1200/Tape & Box
SF35	DO-201AD	500 Units/Box
SF36-T3	DO-201AD	1200/Tape & Reel
SF36-TB	DO-201AD	1200/Tape & Box
SF36	DO-201AD	500 Units/Box
SF37-T3	DO-201AD	1200/Tape & Reel
SF37-TB	DO-201AD	1200/Tape & Box
SF37	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.

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

We power your everyday.

