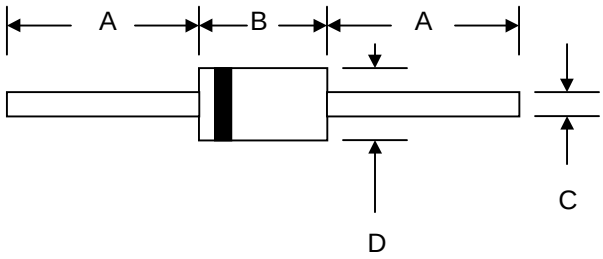
SF11 – SF17

1.0A SUPER-FAST RECTIFIER

Features

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



DO-41		
Dim	**Min**	**Max**
A	25.4	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 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	SF11	SF12	SF13	SF14	SF15	SF16	SF17	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 = 55°C	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @I_F = 1.0A	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	50				25			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.

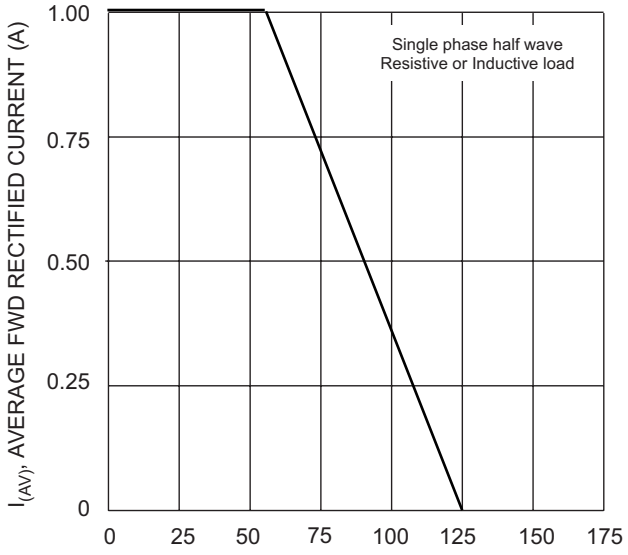


Fig. 1 Forward Current Derating Curve

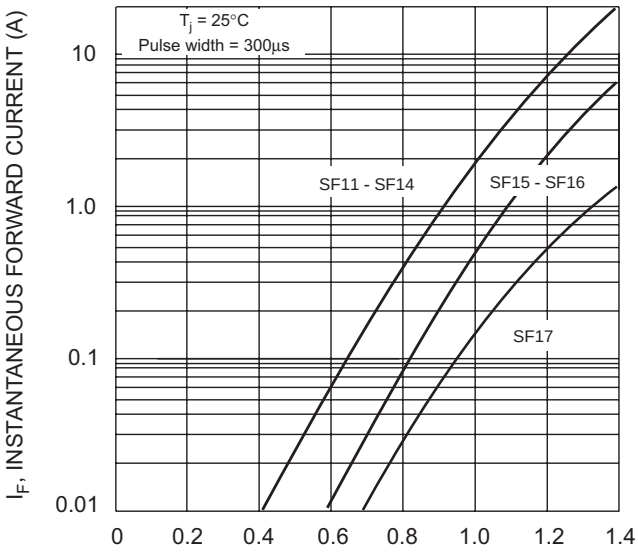


Fig. 2 Typical Forward Characteristics

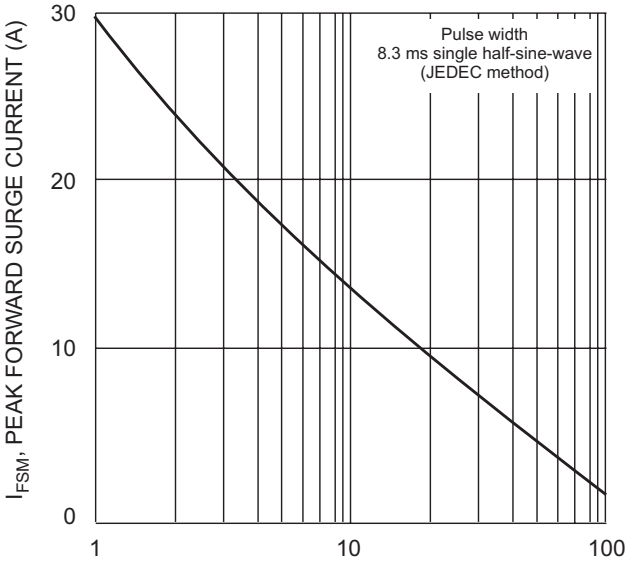


Fig. 3 Peak Forward Surge Current

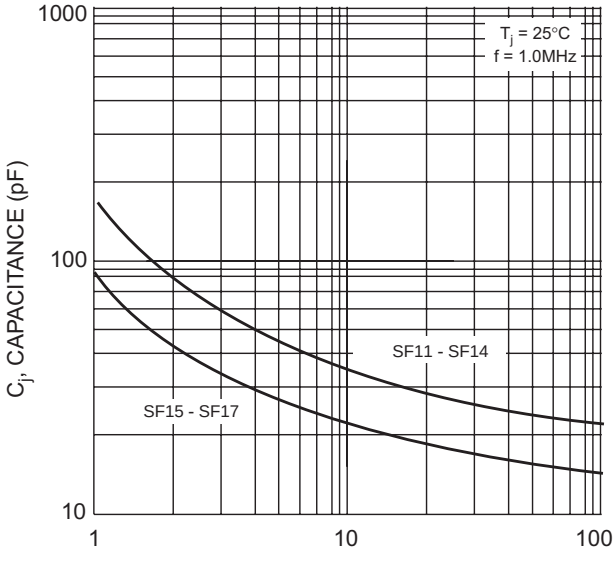
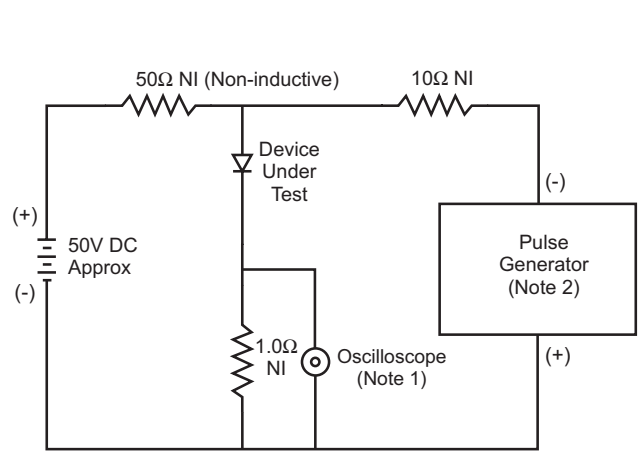


Fig. 4 Typical Junction Capacitance



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

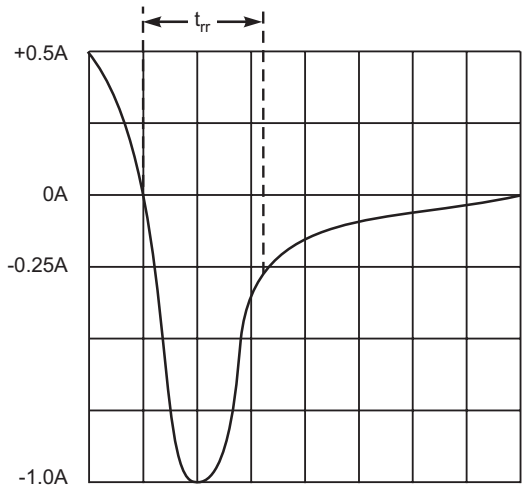


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SF11-T3	DO-41	5000/Tape & Reel
SF11-TB	DO-41	5000/Tape & Box
SF11	DO-41	1000 Units/Box
SF12-T3	DO-41	5000/Tape & Reel
SF12-TB	DO-41	5000/Tape & Box
SF12	DO-41	1000 Units/Box
SF13-T3	DO-41	5000/Tape & Reel
SF13-TB	DO-41	5000/Tape & Box
SF13	DO-41	1000 Units/Box
SF14-T3	DO-41	5000/Tape & Reel
SF14-TB	DO-41	5000/Tape & Box
SF14	DO-41	1000 Units/Box
SF15-T3	DO-41	5000/Tape & Reel
SF15-TB	DO-41	5000/Tape & Box
SF15	DO-41	1000 Units/Box
SF16-T3	DO-41	5000/Tape & Reel
SF16-TB	DO-41	5000/Tape & Box
SF16	DO-41	1000 Units/Box
SF17-T3	DO-41	5000/Tape & Reel
SF17-TB	DO-41	5000/Tape & Box
SF17	DO-41	1000 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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We power your everyday.

