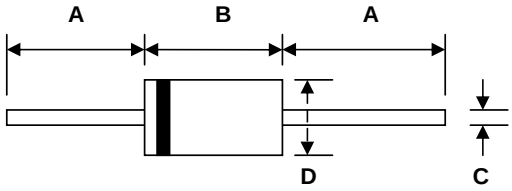
SINLOON®
POWER SEMICONDUCTOR

SF11 - SF17

1.0A Superfast Diode

FEATURE

- Schottky Barrier Chip
- Guard Ring Die Construction for Transistor Protection.
- High Current Capability
- Low Power Loss. High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Prorection Applications.



DO-41		
Dim.	Min.	Max.
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

MECHANICAL DATA

- Case: DO-41, Molded Plastic.
- Terminals: Solder Plated, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band.
- Marking: Type Number
- Weight: 0.34 grams (approx)
- Mounting: Type Number
- Lead Free: For RoHS / Lead free Version, Add "LF" suffix to part Number, See page 3.

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MAXIMUM RATINGS AND ELECTRONICAL CHARACTERISTICS @TA = 25℃ unless otherwise specified

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

Characteristic	Symbol	SF11	SF12	SF13	SF14	SF15	SBF16	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 Outpot Current @TL=100℃(Note 1)	I_O	1.0							A
Non-Repetitive Peak Forward Sutge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @IF=1.0A	V_{FM}	0.95			1.30			1.70	V
Peak Reverse Current @TA=25℃ At Rated DC Blocking Voltage @TA=100℃	I_{RM}	5.0 100							mA
Reverse Revobery Time (Note 2)	Trr	35							nS
Typical Junction Capacitance (Note 3)	Cj	50			30				pF
Operating Storage Temperature Range	Tj.	-65 to +125							℃
Storage Temperature Range	T_{STG}	-65 to +150							℃

Note: *1). Leads maintatined 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.*

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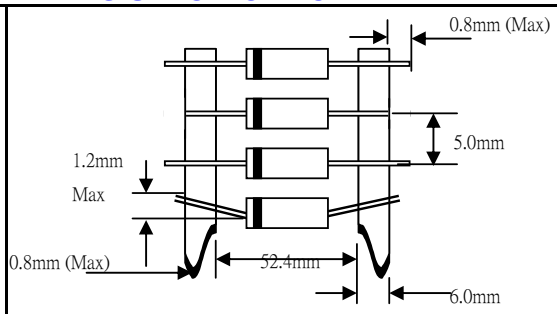
MARKING INFORMATION

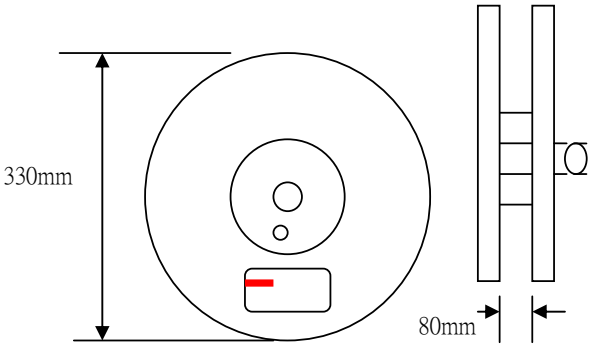
Cathode = Ploarity Band
WTE = Product Brand
SF1x = Device Number Except SF11
X = 1,2,3,4,5,6 or 7

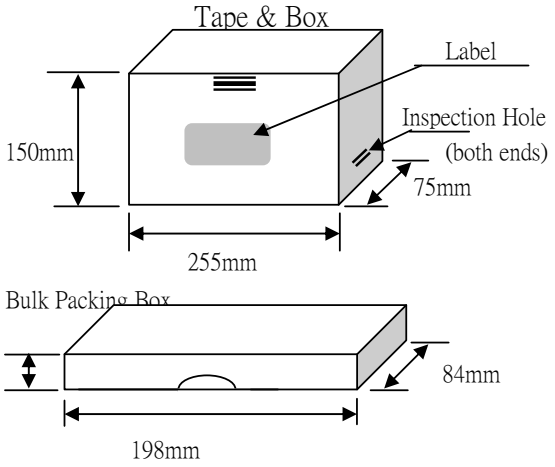
TAPING SPECIFICATION



Cathode Tape: Red. Anode Tape: White

MARKING INFORMATION





Packaging (mm)	Quantity (PCS)	Reel Daimeter Box Size (mm)	Carton Size LxWxH (mm)	Quantity (PCS)	Approx Gross Weight (KG)
Tape & Reel	5000	330	370x370x420	25000	13.0
Tape & Box	5000	255x75x150	400x273x415	50000	21.0
Bulk Box	1000	198x84x20	459x214x256	50000	19.5

Note: 1). Paper reel, white or gray color. Core material: plastic or metal.
2). Components are packed in accprdance with EIA standerd RS-296-E

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity	Product No.	Package Type	Shipping Quantity
SF11-T3	DO-41	5000/Tape & Reel	SF14-T3	DO-41	5000/Tape & Reel
SF11-TB	DO-41	5000/Tape & Reel	SF14-TB	DO-41	5000/Tape & Reel
SF11	DO-41	1000 Unit/Box	SF14	DO-41	1000 Unit/Box
SF12-T3	DO-41	5000/Tape & Reel	SF15-T3	DO-41	5000/Tape & Reel
SF12-TB	DO-41	5000/Tape & Reel	SF15-TB	DO-41	5000/Tape & Reel
SF12	DO-41	1000 Unit/Box	SF15	DO-41	1000 Unit/Box
SF12-T3	DO-41	5000/Tape & Reel	SF16-T3	DO-41	5000/Tape & Reel
SF12-TB	DO-41	5000/Tape & Reel	SF16-TB	DO-41	5000/Tape & Reel
SF12	DO-41	1000 Unit/Box	SF16	DO-41	1000 Unit/Box
SF13-T3	DO-41	5000/Tape & Reel	SF17-T3	DO-41	5000/Tape & Reel
SF13-TB	DO-41	5000/Tape & Reel	SF17-TB	DO-41	5000/Tape & Reel
SF13	DO-41	1000 Unit/Box	SF17	DO-41	1000 Unit/Box

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1). Products listed in bold are WTE Preferred devices.
2). Shipping quantity given in minimum packing quantity only, for minimum order quantity, please consuit the Sales Department.
3). To oder RoHS /Lead Free version (with Lead Free finish), add "LF" suffix to part number above, for example, SF11-TB-LF.

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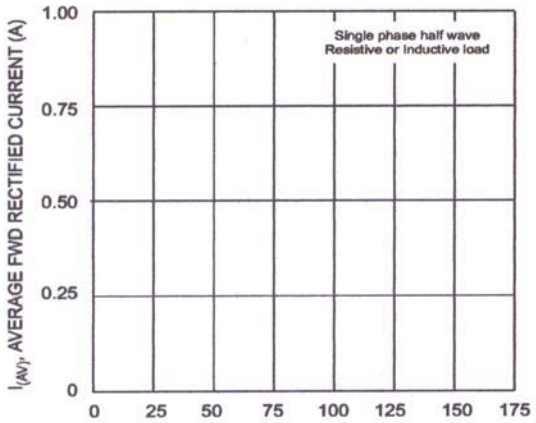


Fig. 1 Forward Current Derating Curve

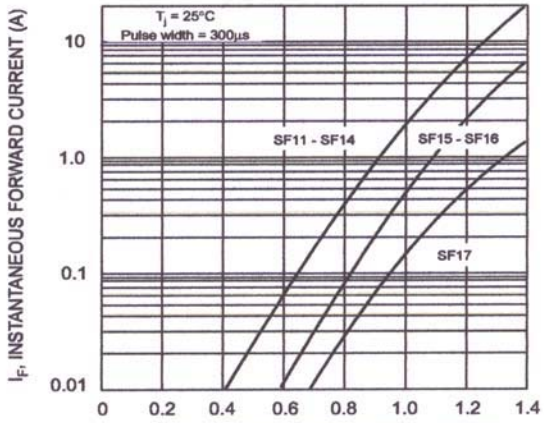


Fig. 2 Typical Forward Characteristics

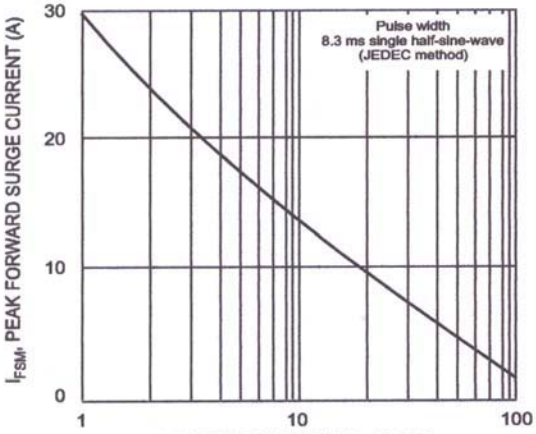


Fig. 3 Peak Forward Surge Current

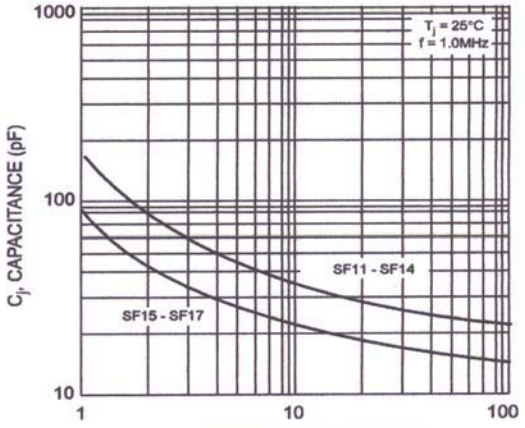
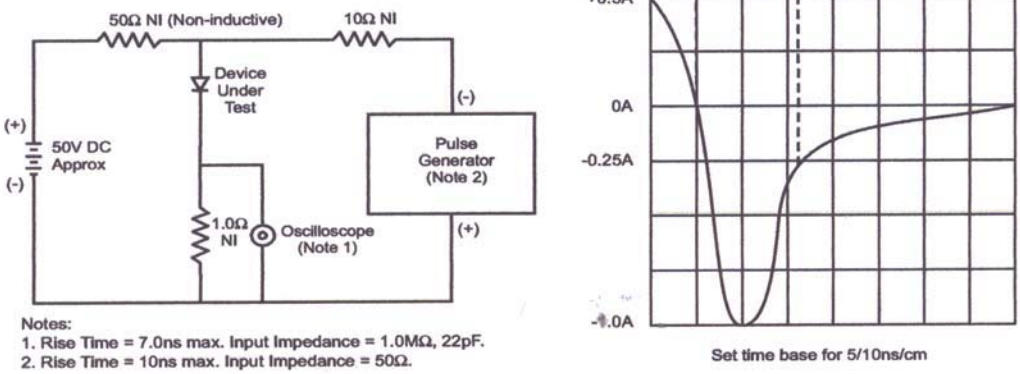


Fig. 4 Typical Junction Capacitance



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