

SFR151 – SFR157

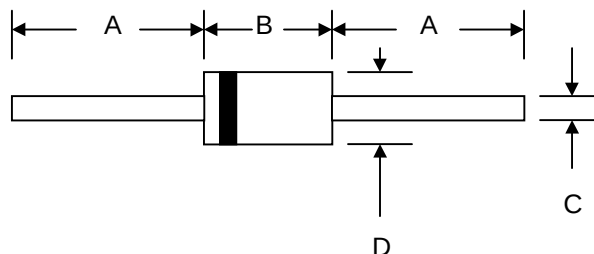
1.5A SOFT FAST RECOVERY RECTIFIER

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: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-15		
Dim	Min	Max
A	25.4	—
B	5.50	7.62
C	0.71	0.864
D	2.60	3.60
All Dimensions in mm		

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	SFR151	SFR152	SFR153	SFR154	SFR155	SFR156	SFR157	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _A = 55°C	I _O	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Forward Voltage @I _F = 1.5A	V _{FM}	1.2							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}	120				200	350		nS
Typical Junction Capacitance (Note 3)	C _j	30							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 I_F = 0.5A, I_R = 1.0A, IRR = 0.25A. See figure 5.
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

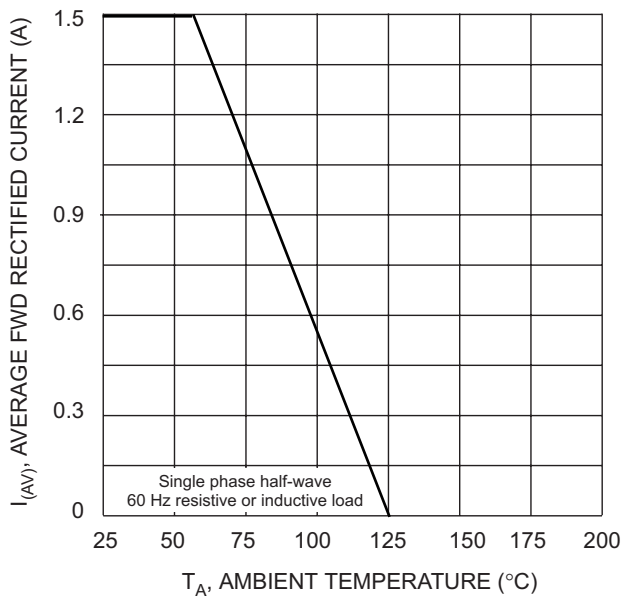


Fig. 1 Forward Derating Curve

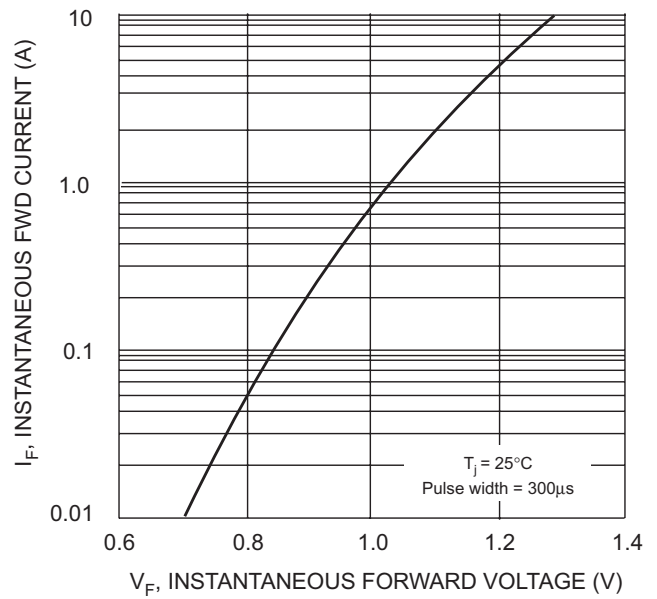


Fig. 2 Typical Forward Characteristics

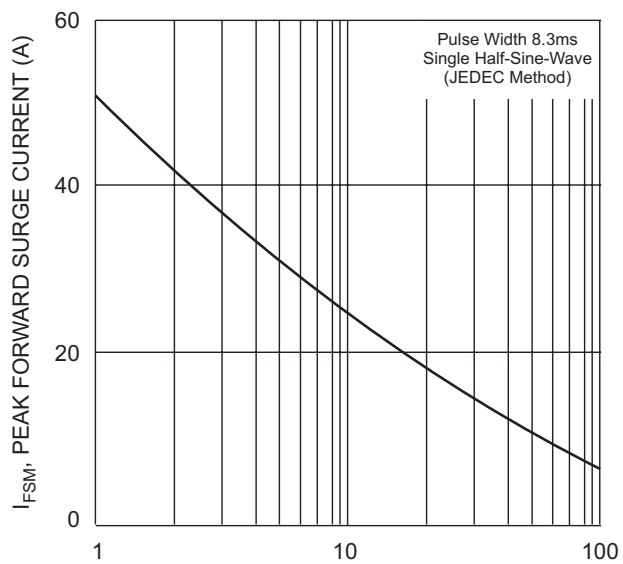


Fig. 3 Peak Forward Surge Current

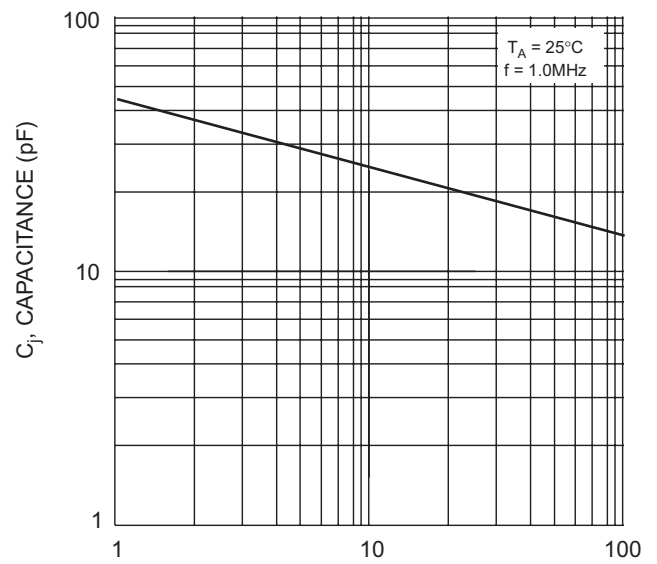
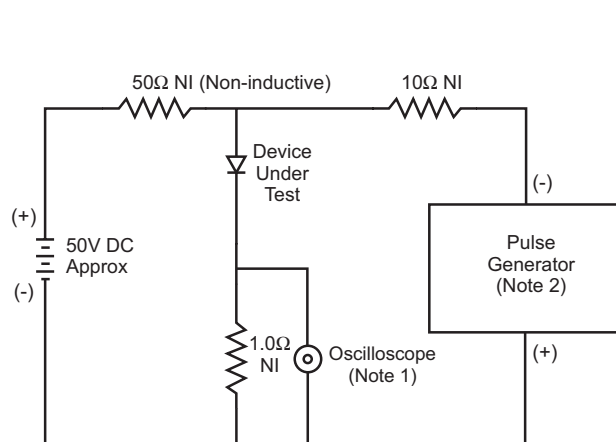


Fig. 4 Typical Junction Capacitance



- 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
SFR151-T3	DO-15	4000/Tape & Reel
SFR151-TB	DO-15	3000/Tape & Box
SFR151	DO-15	1000 Units/Box
SFR152-T3	DO-15	4000/Tape & Reel
SFR152-TB	DO-15	3000/Tape & Box
SFR152	DO-15	1000 Units/Box
SFR153-T3	DO-15	4000/Tape & Reel
SFR153-TB	DO-15	3000/Tape & Box
SFR153	DO-15	1000 Units/Box
SFR154-T3	DO-15	4000/Tape & Reel
SFR154-TB	DO-15	3000/Tape & Box
SFR154	DO-15	1000 Units/Box
SFR155-T3	DO-15	4000/Tape & Reel
SFR155-TB	DO-15	3000/Tape & Box
SFR155	DO-15	1000 Units/Box
SFR156-T3	DO-15	4000/Tape & Reel
SFR156-TB	DO-15	3000/Tape & Box
SFR156	DO-15	1000 Units/Box
SFR157-T3	DO-15	4000/Tape & Reel
SFR157-TB	DO-15	3000/Tape & Box
SFR157	DO-15	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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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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