

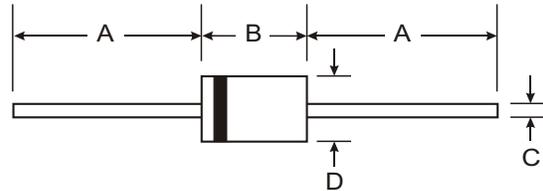


# FR151 - FR157

## 1.5A FAST RECOVERY RECTIFIER

### Features

- Low Reverse Recovery Time ( $T_{rr}$ )
- Low Reverse Current
- Low Forward Voltage Drop
- High Current Capability
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: DO-15, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.4 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

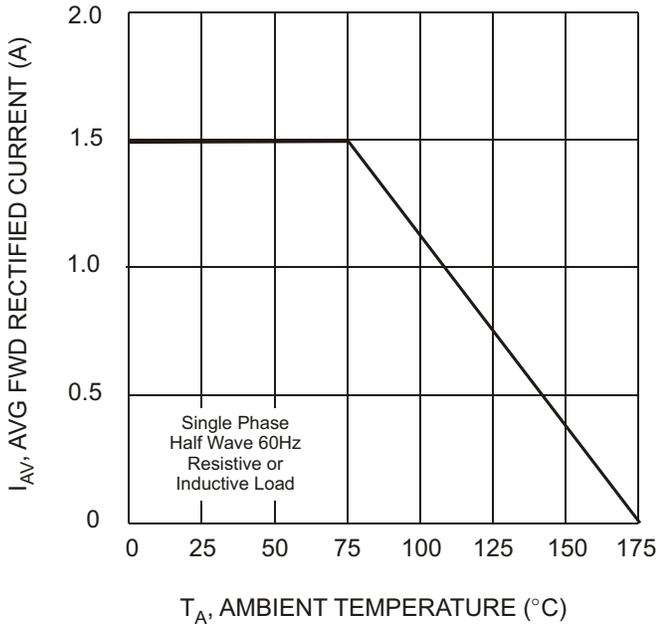
DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.6
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

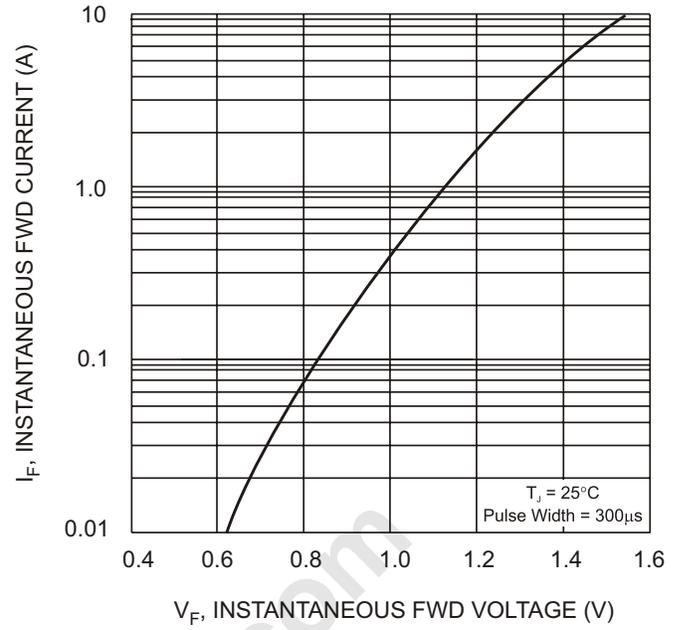
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	FR151	FR152	FR153	FR154	FR155	FR156	FR157	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.5							A
Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FM}$	60							A
Maximum Instantaneous Forward Voltage @ 1.5A DC	$V_F$	1.3							V
Maximum DC Reverse Current at rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
Maximum Full Load Reverse Current Full Cycle Average 9.5 mm lead length @ $T_L = 55^\circ\text{C}$	$I_R$	100							$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	150			250		500		nS
Typical Junction Capacitance (Note 2)	$C_J$	25							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175							$^\circ\text{C}$

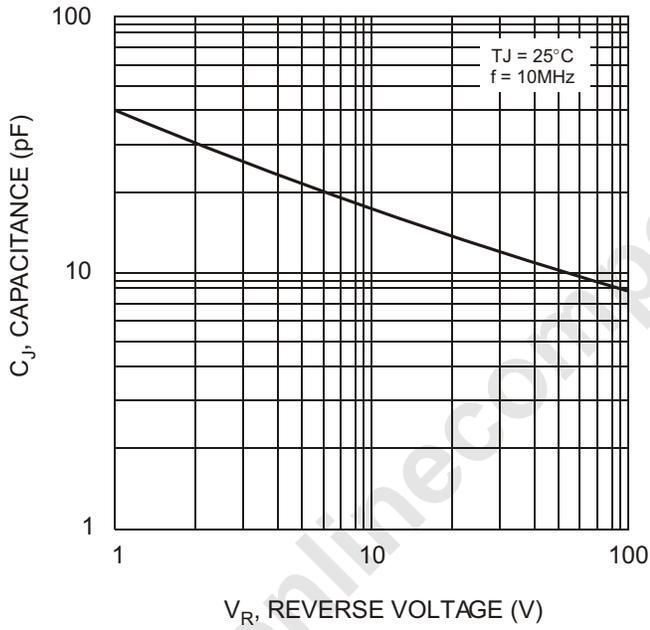
Notes: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$   
2. Measured at 1.0MHz applied reverse voltage of 4.0V.



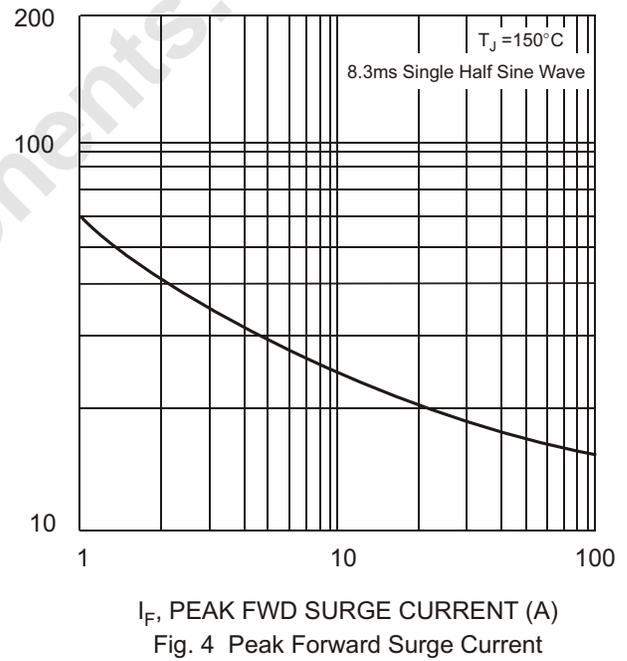
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Derating Curve



$V_F$ , INSTANTANEOUS FWD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 3 Typical Junction Capacitance



$I_F$ , PEAK FWD SURGE CURRENT (A)  
Fig. 4 Peak Forward Surge Current