



FR151G THRU FR157G

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

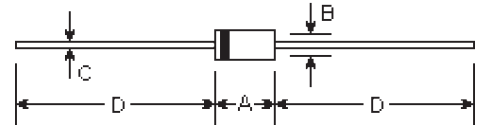
Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.5 Amperes

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- Glass passivated junction
- 1.5 ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- Fast switching for high efficiency

DO-15



Mechanical Data

- **Case:** Molded plastic, DO-15
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Color band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.014 ounce, 0.395 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.228	0.299	5.8	7.6	
B	0.102	0.142	2.6	3.6	φ
C	0.028	0.034	0.71	0.86	φ
D	1.000	-	25.40	-	

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

	Symbols	FR 151G	FR 152G	FR 153G	FR 154G	FR 155G	FR 156G	FR 157G	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Average forward rectified current at $T_{\text{A}}=55^{\circ}\text{C}$	$I_{(\text{AV})}$	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave	I_{FSM}	60.0							Amps
Maximum instantaneous forward voltage $I_{\text{FM}}=1.5\text{A}$; $T_{\text{A}}=25^{\circ}\text{C}$ (Note 1)	V_{F}	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage $T_{\text{A}}=25^{\circ}\text{C}$ $T_{\text{A}}=100^{\circ}\text{C}$	I_{R}	5.0 100.0							μA
Maximum reverse recovery time at $I_{\text{F}}=0.5\text{A}$, $I_{\text{R}}=1.0\text{A}$, $I_{\text{rr}}=0.25\text{A}$	T_{rr}	150				250	500		nS
Typical junction capacitance Measured at 1.0MHz, $V_{\text{R}}=4.0\text{V}$	C_{J}	20.0							μF
Operating and storage temperature range	T_{J} , T_{STG}	-65 to +175							$^{\circ}\text{C}$

Note:

(1) Pulse test: Pulse width 300uSec, Duty cycle 1%

RATINGS AND CHARACTERISTIC CURVES

Figure 1
Typical Forward Characteristics

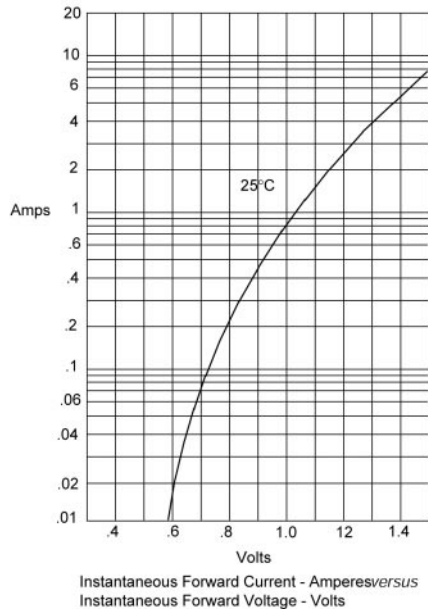


Figure 2
Forward Derating Curve

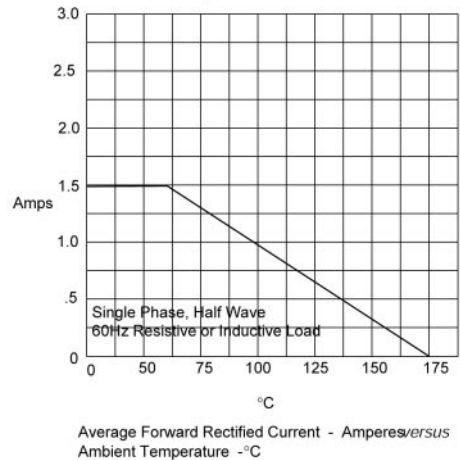
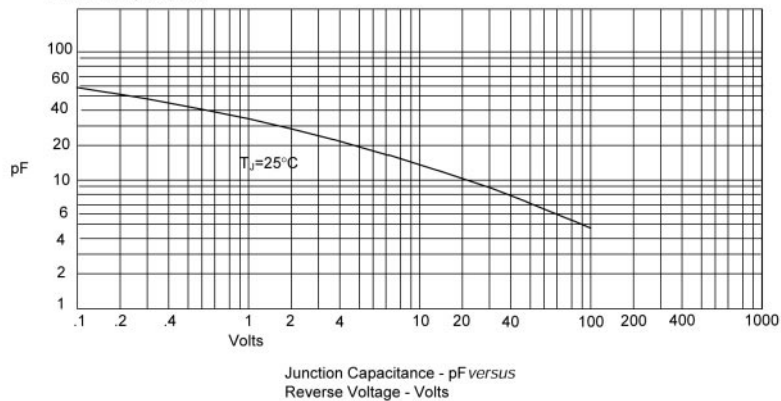


Figure 3
Junction Capacitance



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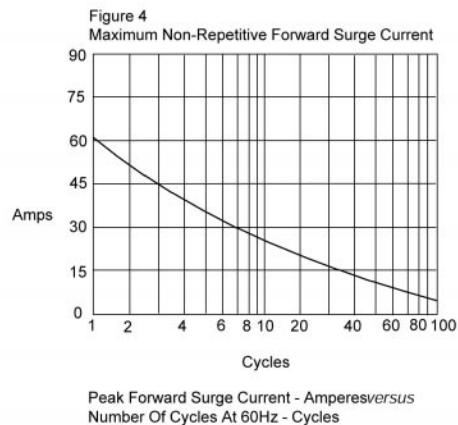


Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram

