

FR151 THRU FR157

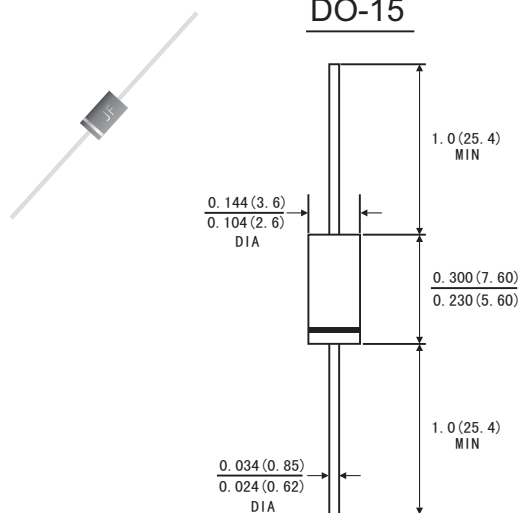
FAST RECOVERY RECTIFIER
Reverse Voltage: 50 to 1000 Volts
Forward Current: 1.5 Amperes

FEATURES

- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014 ounce, 0.39 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

	Symbols	FR 151	FR 152	FR 153	FR 154	FR 155	FR 156	FR 157	Units
Maximum Recurrent 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
Maximum Average Forward Rectified Current	I(AV)	1.5							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	50.0							Amps
Maximum Instantaneous Forward Voltage at 1.5 A	V _F	1.2							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	5.0							μA
	T _A =100°C								
Maximum reverse recovery time (Note 1)	t _{rr}	150			250	500		ns	
Typical junction capacitance (Note 2)	C _J	30							pF
Operating junction and storage temperature range	T _J	-55 to +125							°C
	T _{STG}	-55 to +150							

Note: 1. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES FR151 THRU FR157

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

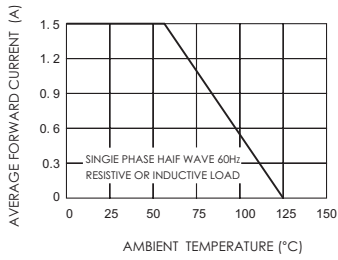


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

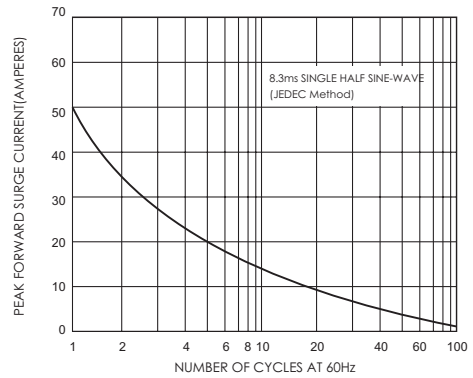


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

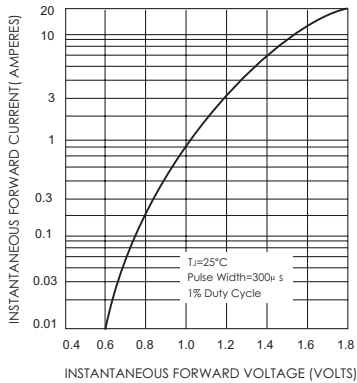


FIG.4-TYPICAL JUNCTION CAPACITANCE

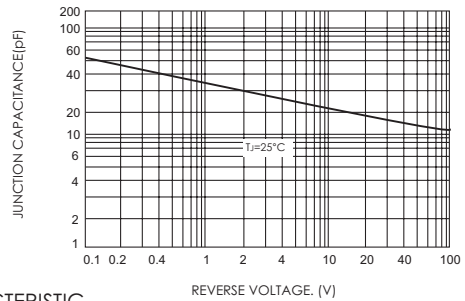
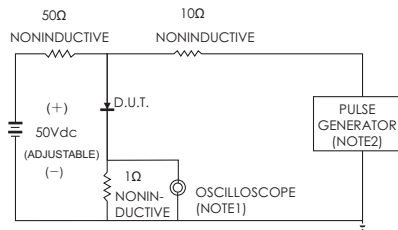


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time=7ns max. input Impedance=1 megohm 22pF
 2. Rise Time=10ns max. source Impedance=50 ohms

