



JUXINTONG

FR151 THRU FR157

Fast Recovery Rectifiers

FEATURES

- High current capability
- 1.5 ampere operation at $T_A=55^\circ$ with no thermal runaway.
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.

MECHANICAL DATA

Case: Molded plastic, DO-15

Epoxy: UL 94V-O rate flame retardant

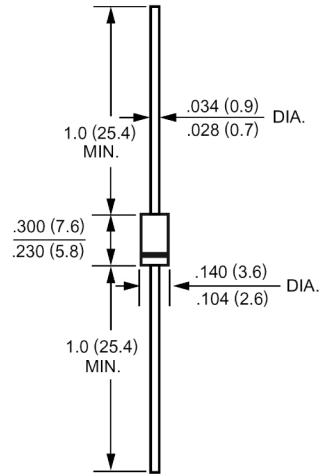
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.015ounce, 0.4gram

DO-15



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25° ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	FR151	FR152	FR153	FR154	FR155	FR156	FR157	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 .375"(9.5mm) Lead Length at $T_A=55^\circ$	$I_{(AV)}$	1.5							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amp
Maximum Forward Voltage at 1.5A DC and 25°	V_F	1.3							Volts
Maximum Reverse Current at $T_A=25^\circ$ at Rated DC Blocking Voltage $T_A=100^\circ$	I_R	100							uAmp
Typical Junction Capacitance (Note 1)	C_J	30							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	45							$^\circ F/W$
Maximum Reverse Recovery Time (Note 3)	T_{RR}	150				250	500		nS
Operating and Storage Temperature Range	T_J • T_{stg}	-55 to +150							• •



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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

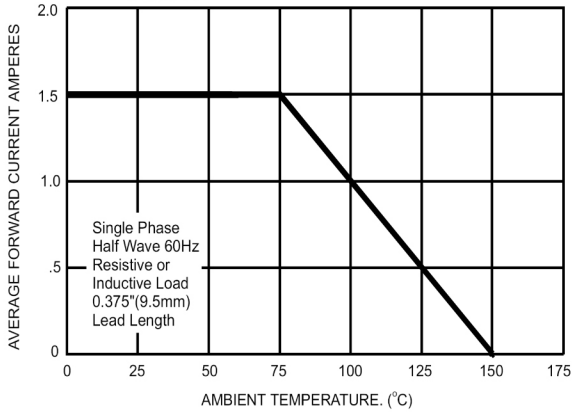


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

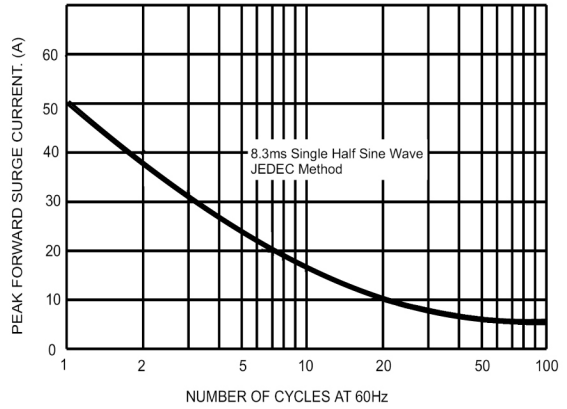


FIG.3- TYPICAL FORWARD CHARACTERISTICS

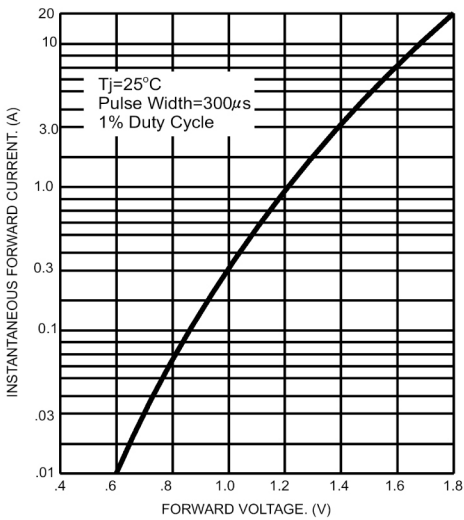


FIG.4- TYPICAL JUNCTION CAPACITANCE

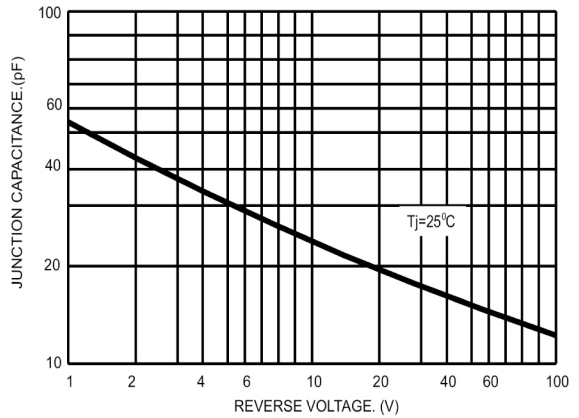
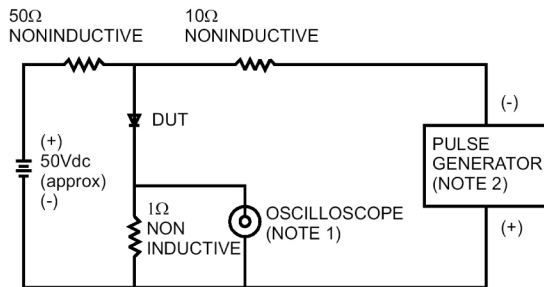


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms

