

1.5A Fast Recovery Rectifiers

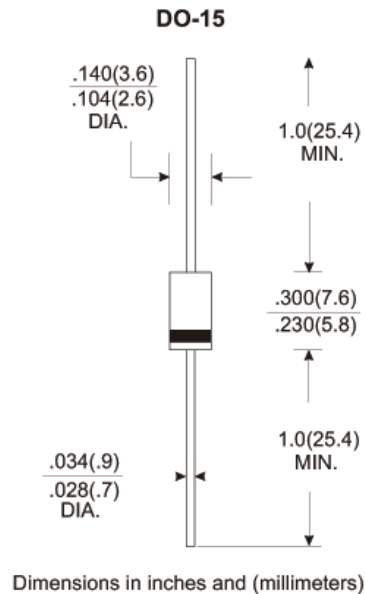
FR151 THRU FR157 50 to 1000 V 1.5 A

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL- STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed:
250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.39 gram



Maximum Ratings and Electrical Characteristics

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

Type Number	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 @ $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.5							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amp
Maximum instantaneous Forward Voltage @1.5A	V_F	1.3							Volts
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 100							μAmp
Maximum Reverse Recovery Time (Note 1)	TRR	150			250		500		nS
Typical Junction Capacitance (Note2)	C_J	25							pF
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							°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 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

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RATINGS AND CHARACTERISTIC CURVES (FR151 THRU FR157)

FIG . 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

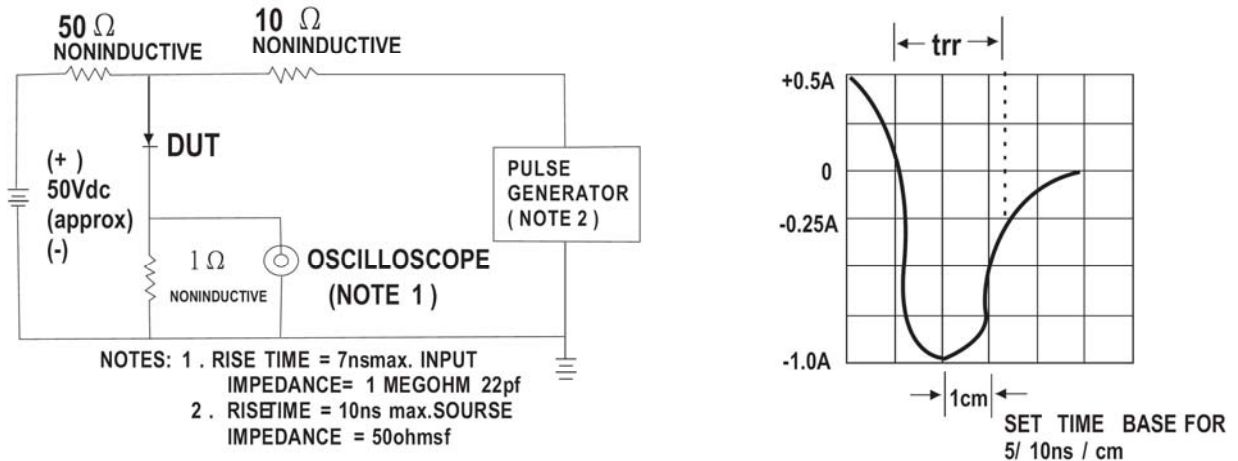


FIG . 2-TYPICAL JUNCTION CAPACITANCE

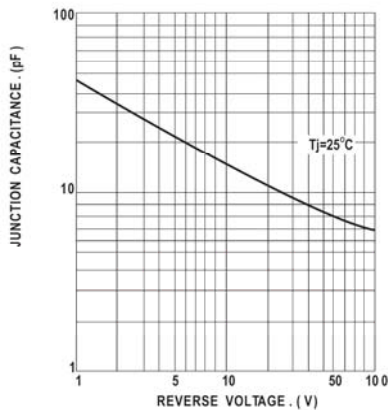


FIG . 4 -MAXIMUM FORWARD CURRENT DERATING CURVE

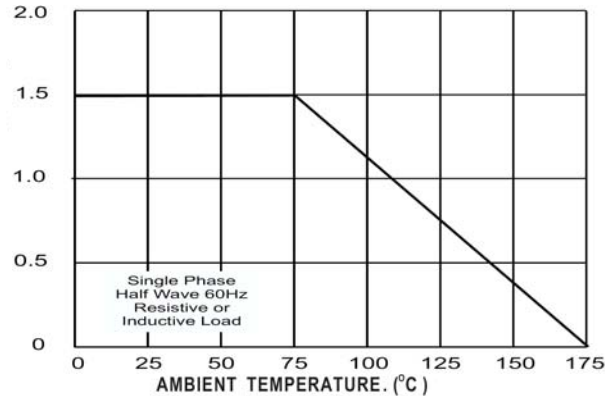


FIG . 3-TYPICAL FORWARD CHARACTERISTICS

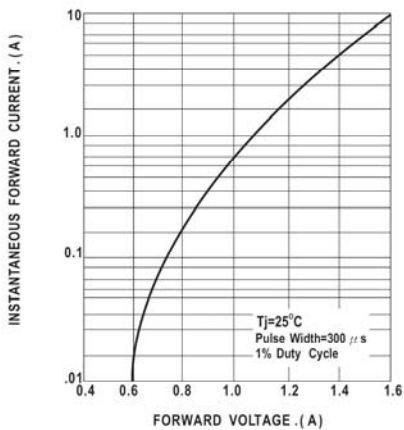


FIG . 5 -MAXIMUM NON - REPETITIVE PEAK FORWARD SURGE CURRENT

