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FR151 THRU FR157

1.5 AMPS. FAST RECOVERY RECTIFIERS

FEATURES

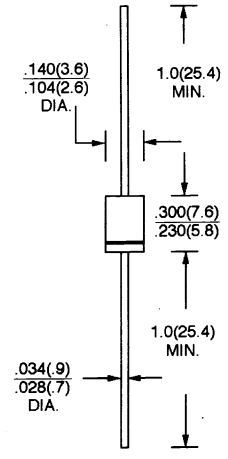
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V – 0 rate flame retardant
* Lead: Axial leads, solderable per MIL – STD – 202, method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting Position: Any
* Weight: 0.40 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.5 Amperes

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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	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	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length @ T_A = 55℃	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.3							V
Maximum D.C Reverse Current @ T_A = 25℃ at Rated D.C Blocking Voltage @ T_A = 125℃	I_R	5.0 100							μA μA
Maximum Reverse Recovery Time(Note1)	T_{RR}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_J	25							pF
Operating Temperature Range	T_J	– 65 to + 125							℃
Storage Temperature Range	T_{STG}	– 65 to + 150							℃

NOTES: 1. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES (FR151 THRU FR157)

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

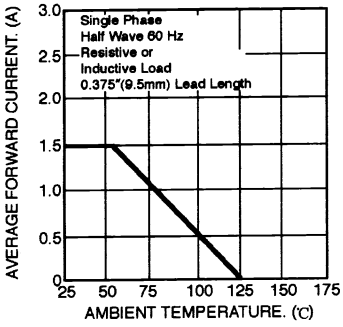

FIG.2 – MAXIMUM NON – REPETITIVE FORWARD SURGE CURRENT

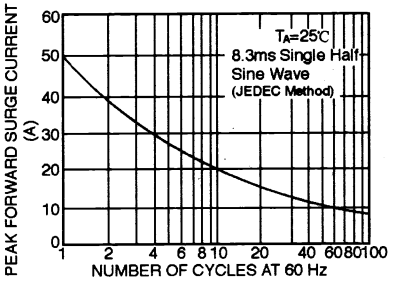

FIG.3 – TYPICAL FORWARD CHARACTERISTICS

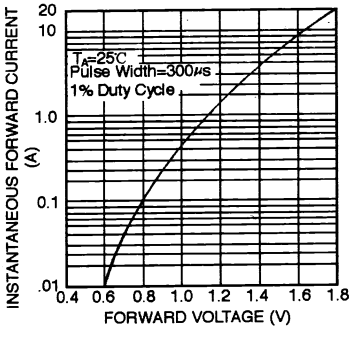

FIG.4 – TYPICAL JUNCTION CAPACITANCE

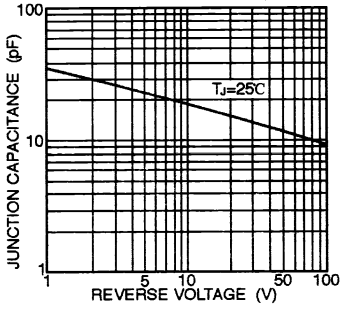

FIG.5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS