



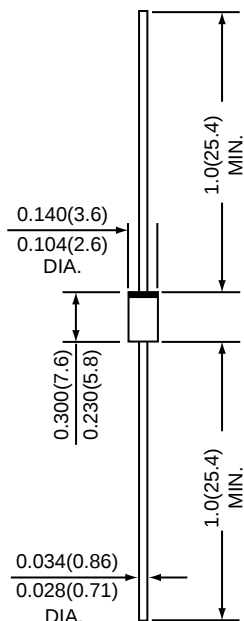
FR151 THRU FR157

FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.5 Amperes

DO-204AC



*Dimensions in inches and (millimeters)



FEATURES

- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability

MECHANICAL DATA

Case : JEDEC DO-204AC molded plastic

Epoxy : UL 94V-O rate flame retardant

Lead : MIL-STD-202F method 208C guaranteed

Mounting Position : Any

Weight : 0.38 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	FR151	FR152	FR153	FR154	FR155	FR156	FR157	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at TA=75°C	I(AV)	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	60							Amps
Maximum instantaneous forward voltage at 1.5 A	VF	1.3							Volts
Maximum Full Load Reverse Current Full Cycle average, 0.375" (9.5mm) lead length at TL=55°C	IR(AV)	100							uA
Maximum DC reverse current at rated DC blocking voltage TA=25°C	IR	5.0							uA
Maximum reverse recovery time (NOTE 1)	trr	150				250	500		nS
Typical junction capacitance (NOTE 2)	CJ	40							pF
Operating junction and storage temperature range	TJ,TSTG	-65 to +150							°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES FR151 THRU FR157

FIG.1 - FORWARD CURRENT DERATING CURVE

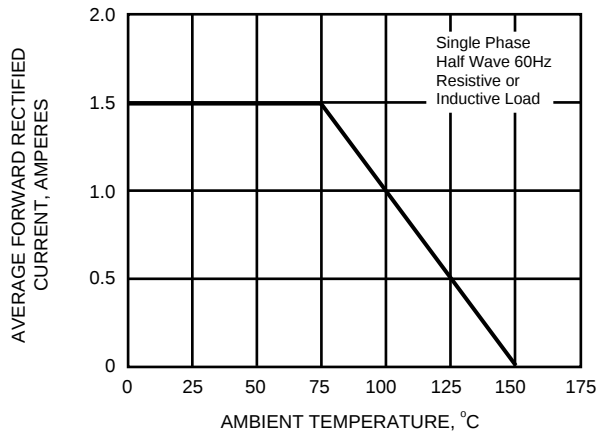


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

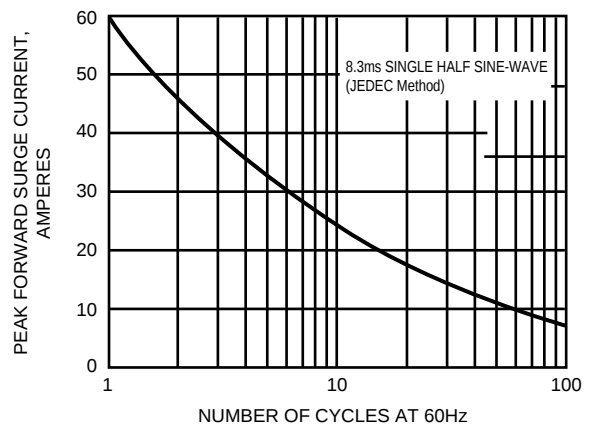


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

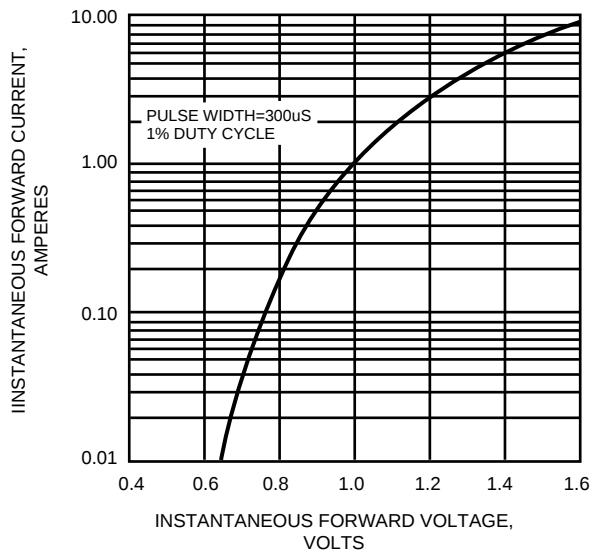


FIG.4 - TYPICAL REVERSE CHARACTERISTICS
FIG.5 - TYPICAL JUNCTION CAPACITANCE

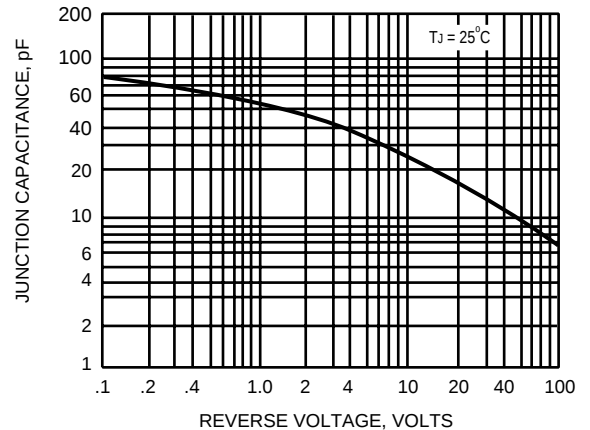
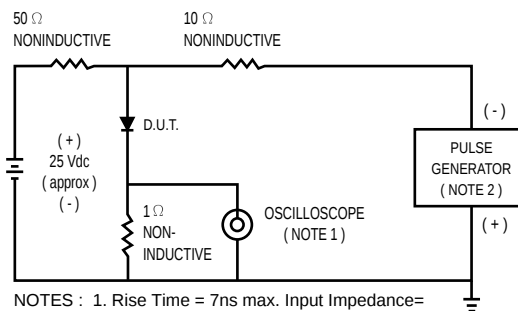


FIG.6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

