

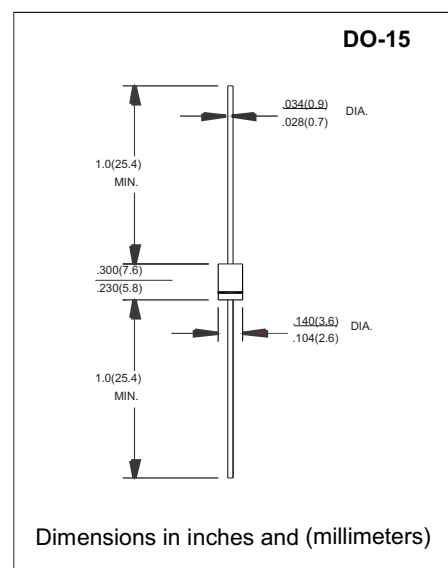
FAST RECOVERY RECTIFIER

FEATURES

- Low cost construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

PARAMETER		SYMBOLS	FR 151	FR 152	FR 153	FR 154	FR 155	FR 156	FR 157	UNITS
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V _{RMS}	35	75	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 0.375"(9 5mm) lead length at T _A = 75°C		I _(AV)	1.5							Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	60							Amps
Maximum Instantaneous Forward Voltage @ 1.5A		V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	5.0							μA
	T _A = 100°C		200							
Maximum Reverse Recovery Time (Note 3) T _J =25°C		t _{rr}	150				250	500		ns
Typical Junction Capacitance (Note 1)		C _J	25							pF
Typical Thermal Resistance (Note 2)		R _{θJA}	50							°C/W
Operating Junction Temperature Range		T _J	(-55 to +150)							°C
Storage Temperature Range		T _{STG}	(-55 to +150)							°C

Notes:

- 1.Measured at 1.0MHz and Applied Reverse Voltage of 4.0 Volts.
- 2 Thermal Resistance from junction to Ambient at .375"(9.5mm)lead length, P.C.board mounted.
- 3.Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$

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RATING AND CHARACTERISTIC CURVES FR151 - FR157

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

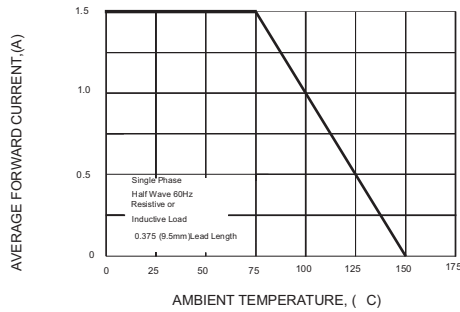


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

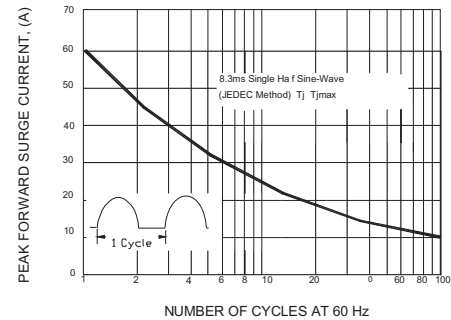


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

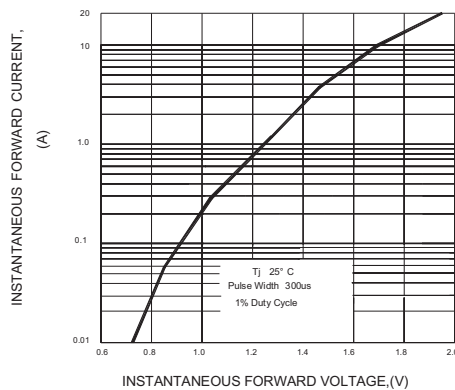


FIG.4-TYPICAL REVERSE CHARACTERISTICS

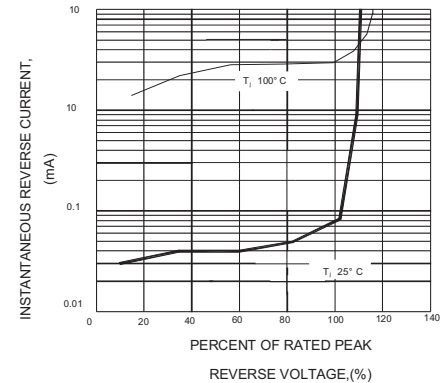


FIG.5-TYPICAL JUNCTION CAPACITANCE

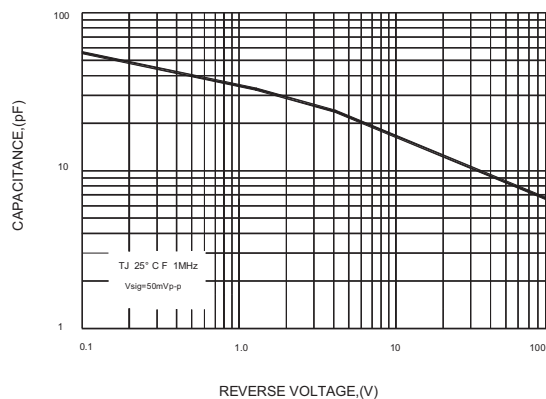
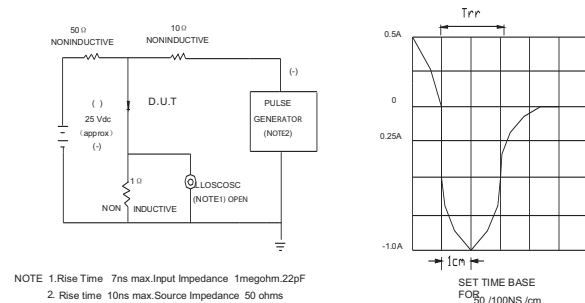


FIG.6 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



Disclaimer

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