



FAST RECOVERY RECTIFIER

FR201 THRU FR207

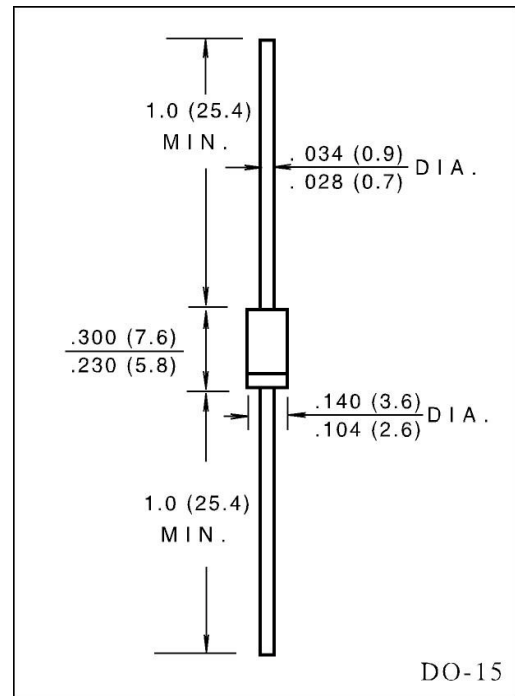
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 2.0 Ampere

FEATURES

- Low cost construction.
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability.
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs (2.3kg) tension.

MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denotes cathode end.
- Lead: Plated axial lead, solderable per MIL - STD - 202E
method 208C
- Mounting position: Any
- Weight: 0.014 ounce, 0.39grams



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%

		SYMBOLS	FR201	FR202	FR203	FR204	FR205	FR26	FR207	UNIT
Maximum Repetitive 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, 0.375" (9.5mm) lead length at T _A =75°C		I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I _{FSM}	70							Amps
Maximum Instantaneous Forward Voltage at 2.0A		V _F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A = 25°C	I _R	5.0							μ A
	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 (Note2)		R _{θJA}	40							°C/W
Operating and Storage Temperature Range		T _J	(-65 to +150)							°C
Storage Temperature Range		T _{STG}	(-65 to +150)							°C

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.
3. Reverse Recovery Test Condition: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$



FAST RECOVERY RECTIFIER

FR201 THRU FR207

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 2.0 Ampere

FIG.1-TYPICAL FORWARD CURRENT

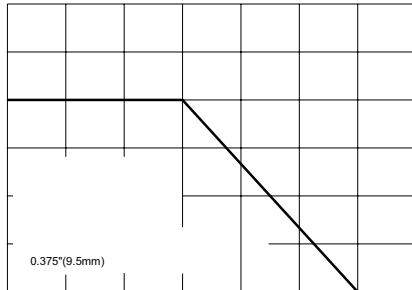


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

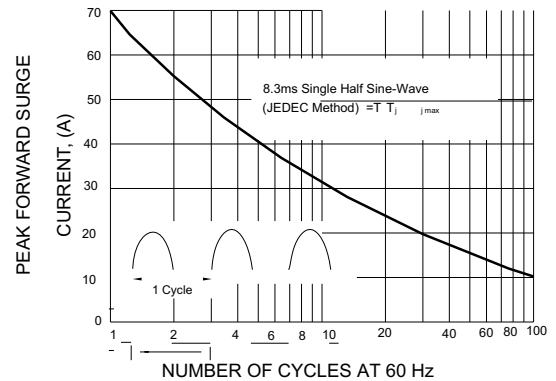


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

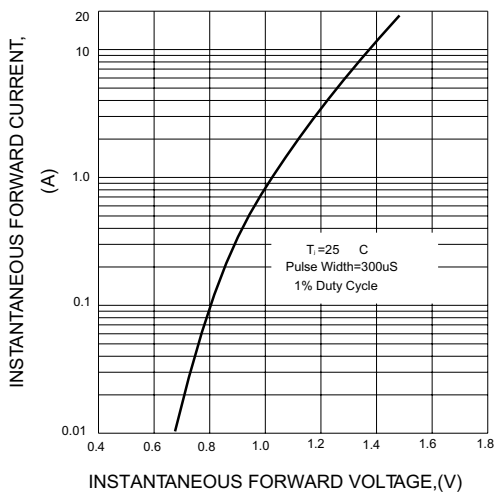


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

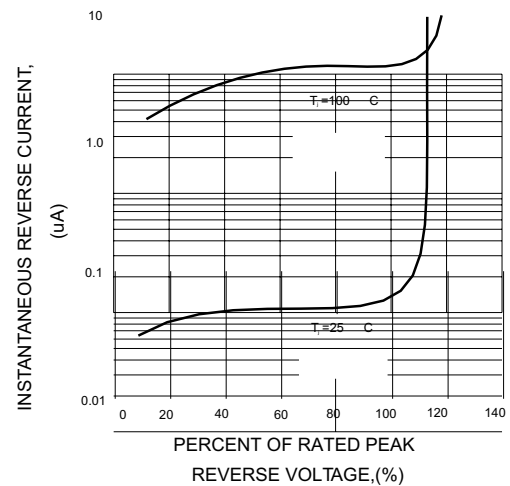


FIG.5-TYPICAL JUNCTION CAPACITANCE

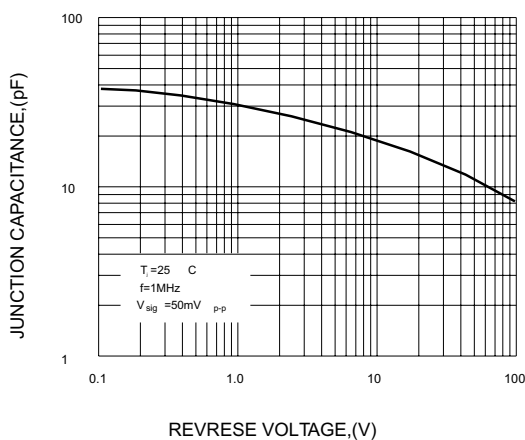
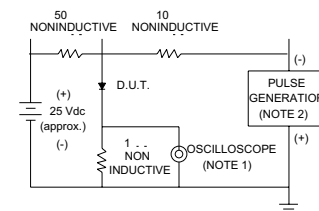


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC



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

