DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

R1200F THRU R3000F

TECHNICAL SPECIFICATIONS OF HIGH VOLTAGE FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 1200 to 3000 Volts *CURRENT - 0.2 to 0.5 Ampere*

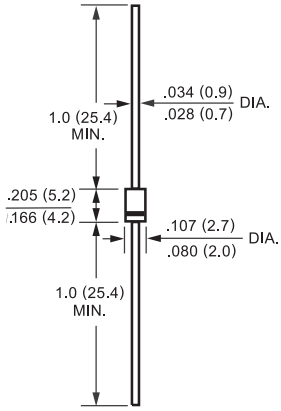
FEATURES

*Fast switching
*Low leakage
*High current capability
*High surge capability
*High reliability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.35 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

	SYMBOL	R1200F	R1500F	R1800F	R2000F	R2500F	R3000F	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1200	1500	1800	2000	2500	3000	Volts
Maximum RMS Volts	V_{RMS}	840	1050	1260	1400	1750	2100	Volts
Maximum DC Blocking Voltage	V_{DC}	1200	1500	1800	2000	2500	3000	Volts
Maximum Average Forward Rectified Current at T_A = 50°C	I_O	500			200			mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30						Amps
Maximum Instantaneous Forward Voltage at 0.5A/0.2A DC	V_F	2.5			4.0		5.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25°C	I_R	5.0						uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375* (9.5mm) lead length at T_L = 55°C		100						uAmps
Maximum Reverse Recovery Time (Note)	trr	500						nSec
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175						°C

NOTES : Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

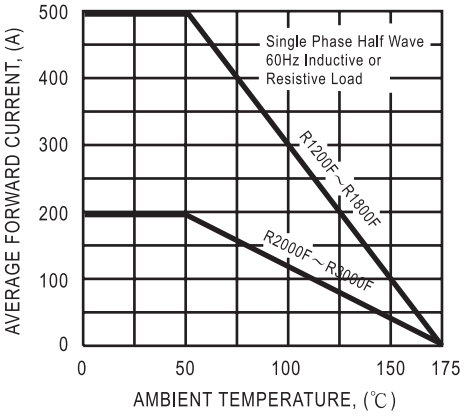


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

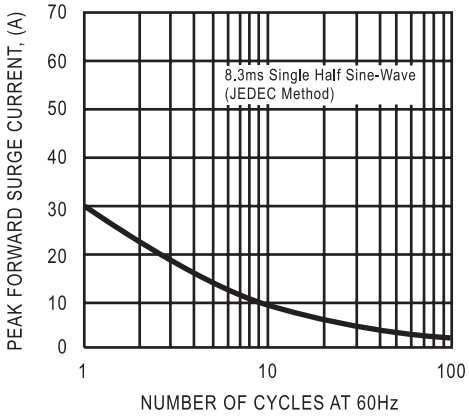
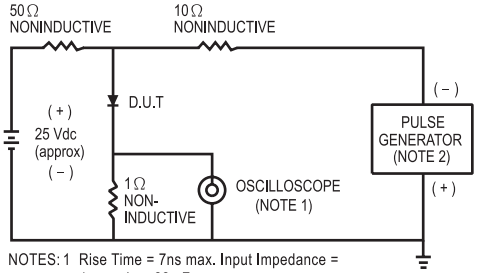


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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