



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**R4000F  
THRU  
R5000F**

**TECHNICAL SPECIFICATIONS OF HIGH VOLTAGE FAST RECOVERY RECTIFIER**

**VOLTAGE RANGE 0 - 4000 to 5000 Volts**

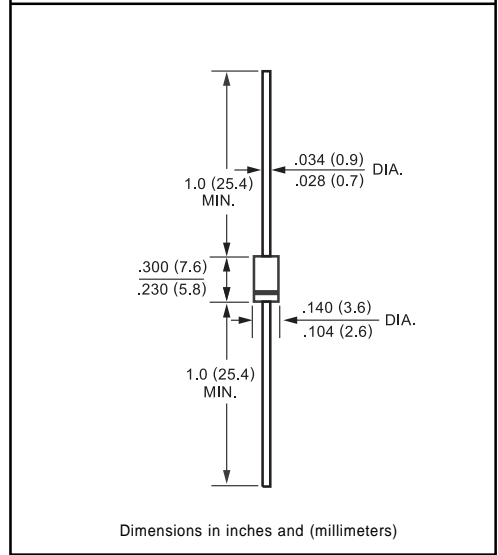
**CURRENT - 0.2 Ampere**

**FEATURES**

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

**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: 0.4 gram



**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	R4000F	R5000F	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	4000	5000	Volts
Maximum RMS Volts	VRMS	2800	3500	Volts
Maximum DC Blocking Voltage	VDC	4000	5000	Volts
Maximum Average Forward Rectified Current at TA = 50°C	Io	200		mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30		Amps
Maximum Instantaneous Forward Voltage at 0.2A DC	VF	6.5		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	IR	5.0		uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at TL = 55°C		100		uAmps
Maximum Reverse Recovery Time (Note)	trr	500		nSec
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175		°C

NOTES : Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A

RA TING AND CHARACTERISTIC CURVES (R4000F THRU R5000F)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

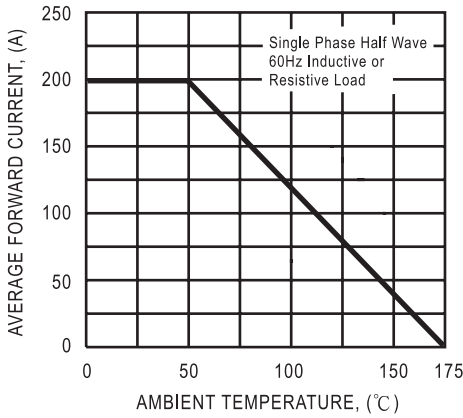


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

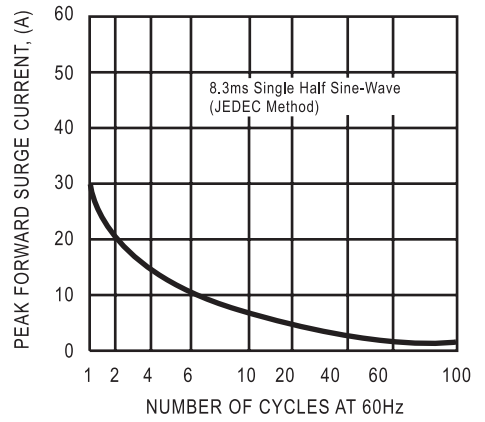
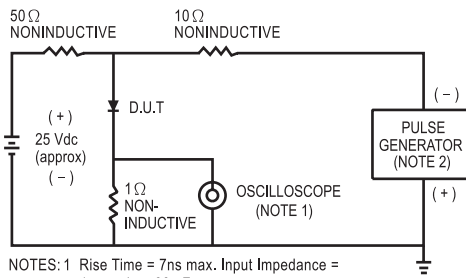
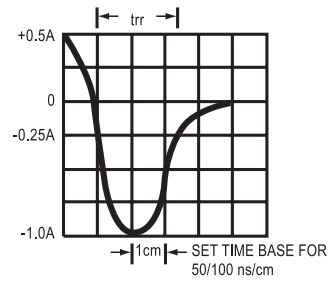


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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



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