



**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**

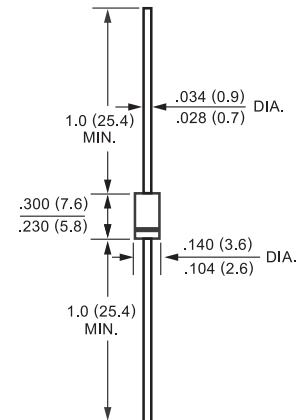
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.4 gram

**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%.



**DO-15**



Dimensions in inches and (millimeters)

	SYMBOL	R4000F	R5000F	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	4000	5000	Volts
Maximum RMS Volts	V <sub>RMS</sub>	2800	3500	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	4000	5000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> = 50°C	I <sub>O</sub>	200		mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30		Amps
Maximum Instantaneous Forward Voltage at 0.2A DC	V <sub>F</sub>	6.5		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0		uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at T <sub>L</sub> = 55°C		100		uAmps
Maximum Reverse Recovery Time (Note)	t <sub>rr</sub>	500		nSec
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 175		°C

NOTES : Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A

## RA TING AND CHARACTERISTIC CURVES (R4000F THRU R5000F)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

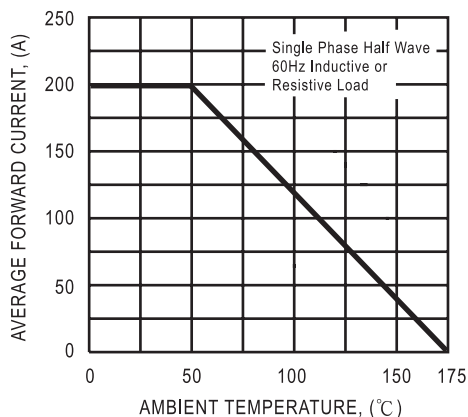


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

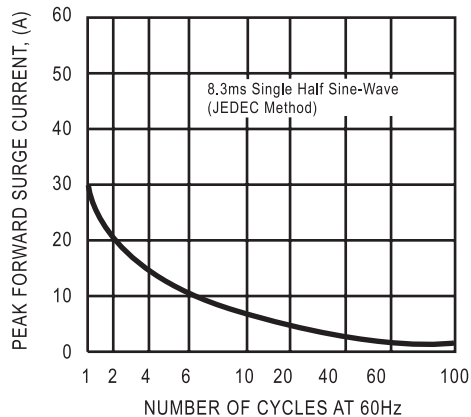
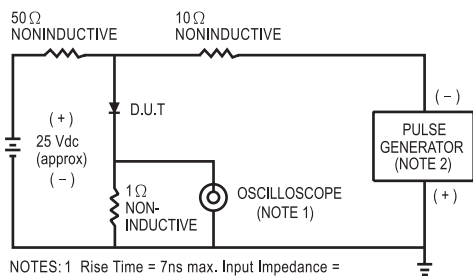
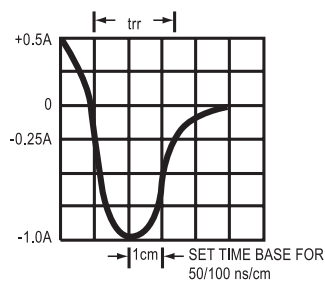


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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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Datasheets for electronics components.