



# R1200F THRU R2000F

## HIGH VOLTAGE FSAT RECOVERY RECTIFIER

**VOLTAGE RANGE**  
1200 To 2000 Volts  
**CURRENT**  
1.0 Ampere

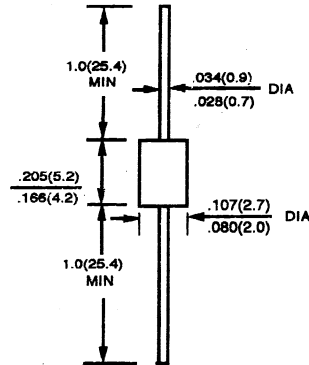
### FEATURES

- \* Fast swiching
- \* low leakage
- \* High current capability
- \* High reliability
- \* High surge capability

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V - 0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any
- \* Weight: 0.34 grams

**DO-41**



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%

TYPE NUMBER	SYMBOLS	R1200F	R1500F	R1800F	R2000F	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1200	1500	1800	2000	V
Maximum RMS Volts	$V_{RMS}$	840	1050	1260	1400	V
Maximum D. C Blocking Voltage	$V_{DC}$	1200	1500	1800	2000	V
Maximum Average Forward Rectified Current @ $T_A = 50^\circ C$	$I_{F(AV)}$	0.5			0.2	A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25				A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.6		2.0		V
Maximum DC Reverse current at Rated DC Blocking Voltage $T_A = 25^\circ C$	$I_R$	10.0				$\mu A$
Maximum Full Load Reverse Current Average, full Cycle .375", (9.5mm) lead length at $T_L = 55^\circ C$		100				$\mu A$
Maximum Reverse Recovery Time ( Note)	$T_{RR}$	500				ns
Operation and Storage Temperate Range	$T_J/T_{STG}$	- 65 to + 150				$^\circ C$

NOTE: (1) Test Conditions:  $I_F = 0.5A$ ,  $I_R = - 1.0A$ ,  $I_{RR} = 0.25A$

## RATINGS AND CHARACTERISTIC CURVES

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

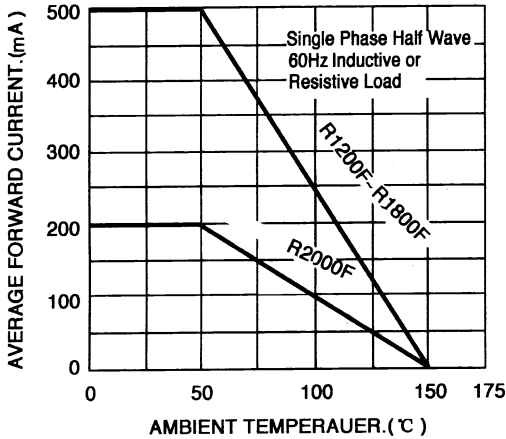


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

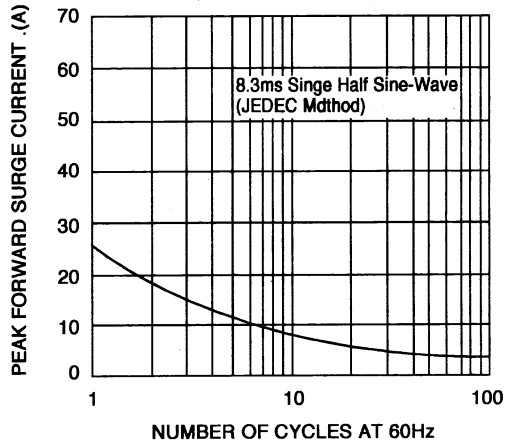
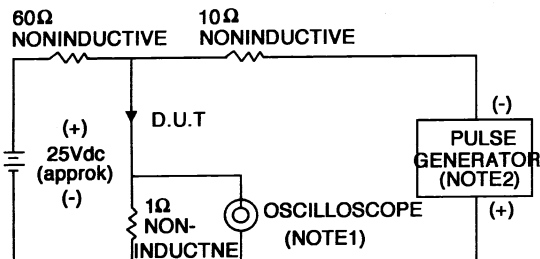


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTE 31  $R_{t\alpha e}$  Time = 7ns max. Input Impedance = 1megohm. 22pF  
 2.  $R_{t\alpha e}$  Time 10ns max. Source Impedance = 50 ohms

