

# R1200F THRU R2500F



HIGH VOLTAGE FAST RECOVERY RECTIFIERS



## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

## MECHANICAL DATA

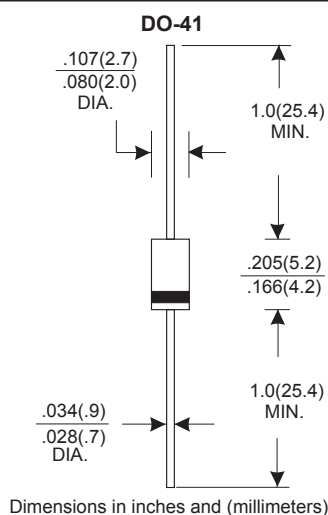
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.34 grams

## VOLTAGE RANGE

1200 to 2500 Volts

## CURRENT

500 & 200 m Ampere



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	R1200F	R1500F	R1600F	R1800F	R2000F	R2500F	UNITS
Maximum Recurrent Peak Reverse Voltage	1200	1500	1600	1800	2000	2500	V
Maximum RMS Voltage	840	1050	1120	1260	1400	1750	V
Maximum DC Blocking Voltage	1200	1500	1600	1800	2000	2500	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C	500				200		mA
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30						A
Maximum Instantaneous Forward Voltage at 0.5A/0.2A D.C.	2.0				3.0		V
Maximum DC Reverse Current Ta=25°C	5.0						μA
at Rated DC Blocking Voltage Ta=100°C	100						μA
Maximum Reverse Recovery Time (Note 1)	500						nS
Typical Junction Capacitance (Note 2)	40						pF
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-65 — +175						°C

### NOTES:

- Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATING AND CHARACTERISTIC CURVES (R1200F THRU R2500F)

FIG.1 - TYPICAL REVERSE CHARACTERISTICS

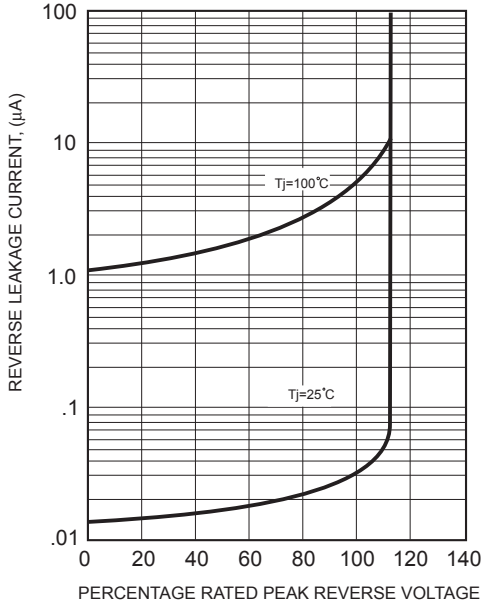


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

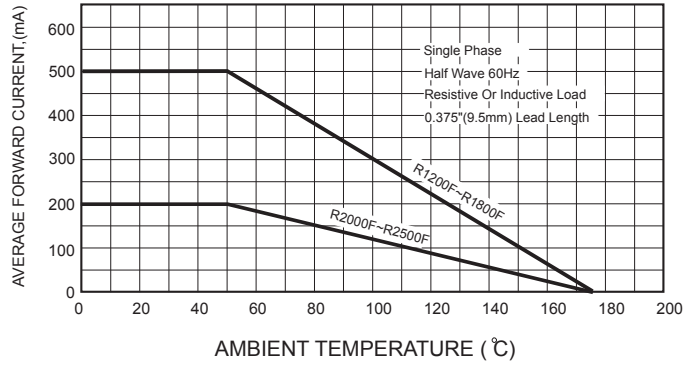


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

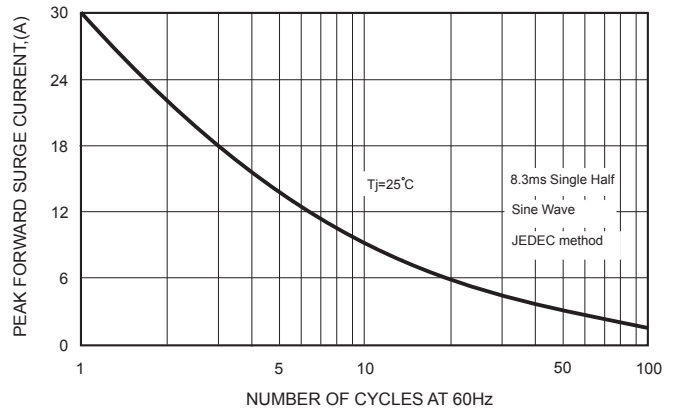
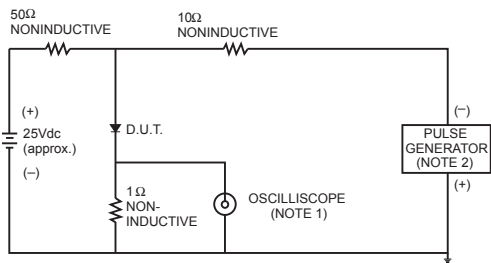


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

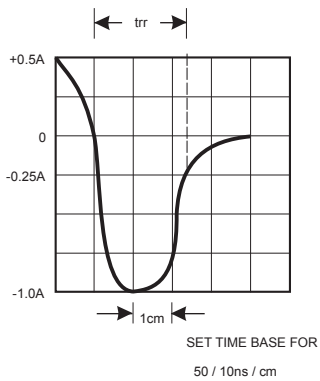


FIG.5-TYPICAL JUNCTION CAPACITANCE

