

R1500F THRU R4000F

HIGH VOLTAGE FAST RECOVERY RECTIFIERS



FEATURES

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

MECHANICAL DATA

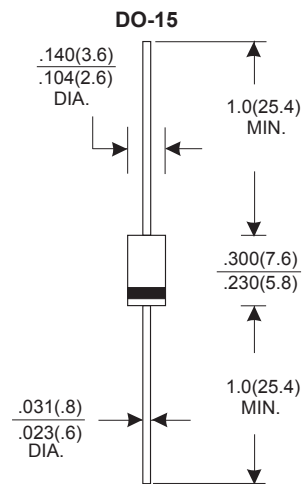
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.40 grams

VOLTAGE RANGE

1500 to 4000 Volts

CURRENT

500 & 200 m Ampere



Dimensions in inches and (millimeters)

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	R1500F	R1600F	R1800F	R2000F	R2500F	R4000F	UNITS
Maximum Recurrent Peak Reverse Voltage	1500	1600	1800	2000	2500	4000	V
Maximum RMS Voltage	1050	1120	1260	1400	1750	2800	V
Maximum DC Blocking Voltage	1500	1600	1800	2000	2500	4000	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			4.5			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 _J , T _{STG}	-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 (R1500F THRU R4000F)

FIG.1 - TYPICAL REVERSE CHARACTERISTICS

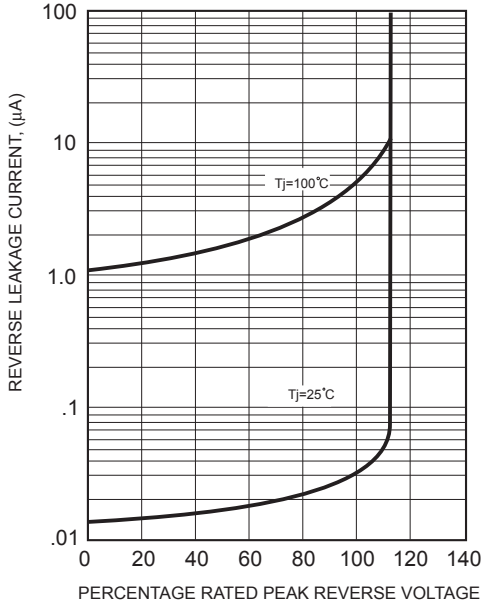


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

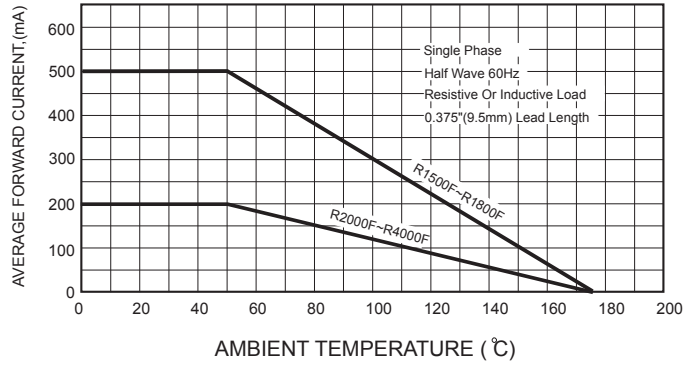


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

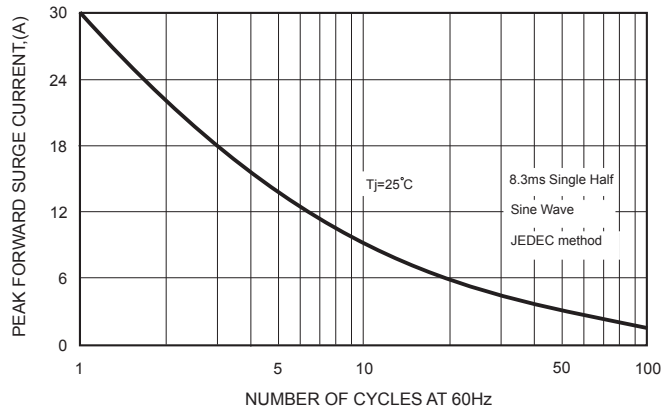
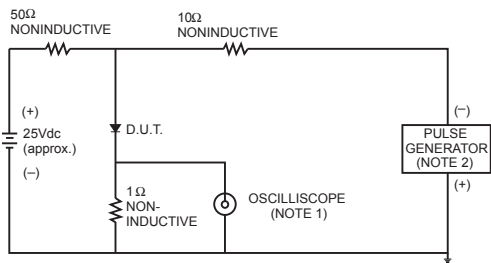


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

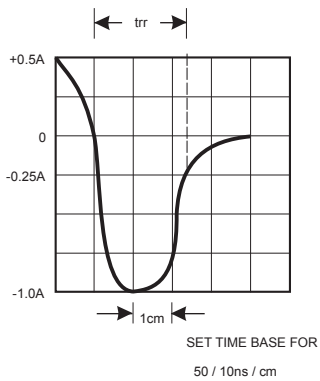


FIG.5-TYPICAL JUNCTION CAPACITANCE

