

WILLAS

**R2500F
THRU
R5000F**

HIGH VOLTAGE FAST RECOVERY RECTIFIER

VOLTAGE RANGE 2500 to 5000 volts CURRENT 0.2 Ampere

Pb Free Product

FEATURES

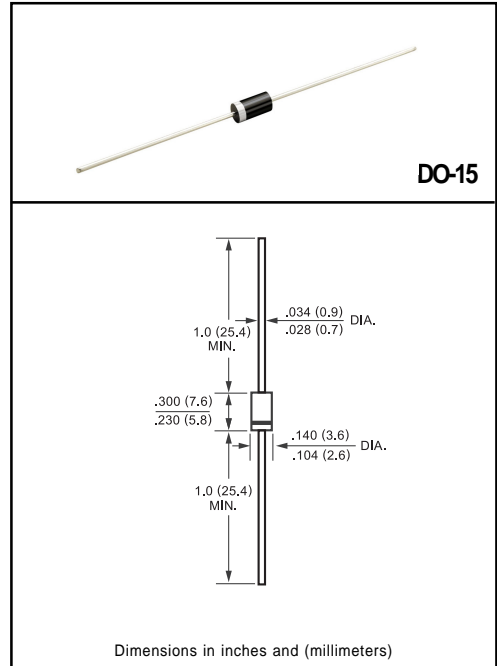
- *Fast switching
- *Low leakage
- *High reliability
- *High current capability
- *High surge capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * 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%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	R2500F	R3000F	R4000F	R5000F	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	2500	3000	4000	5000	Volts
Maximum RMS Volts	V _{RMS}	1750	2100	2800	3500	Volts
Maximum DC Blocking Voltage	V _{DC}	2500	3000	4000	5000	Volts
Maximum Average Forward Rectified Current at TA = 50°C	I _O	200				mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30				Amps
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 175				°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	R2500F	R3000F	R4000F	R5000F	UNITS
Maximum Instantaneous Forward Voltage at 0.2A DC	V _F	4.0	5.0	6.5		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	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)	t _{rr}	500				nSec

NOTES : Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

RATING AND CHARACTERISTIC CURVES (R2500F THRU R5000F)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

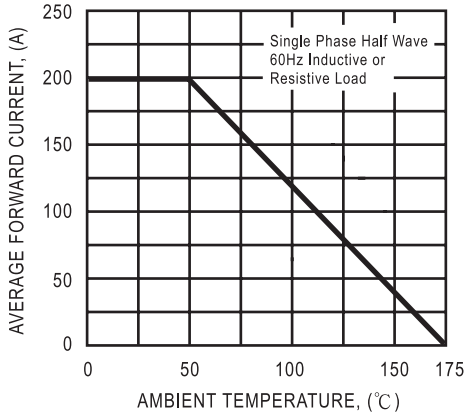


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

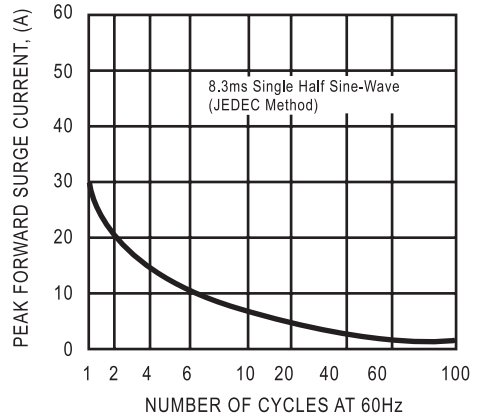
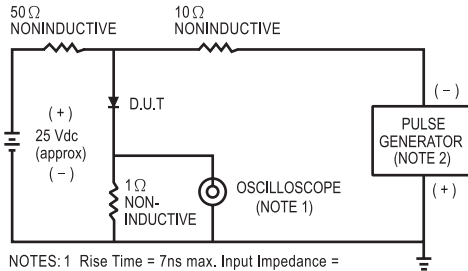


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

