



HIGH VOLTAGE RECTIFIER

R1200F THRU R5000F

**VOLTAGE RANGE
CURRENT**

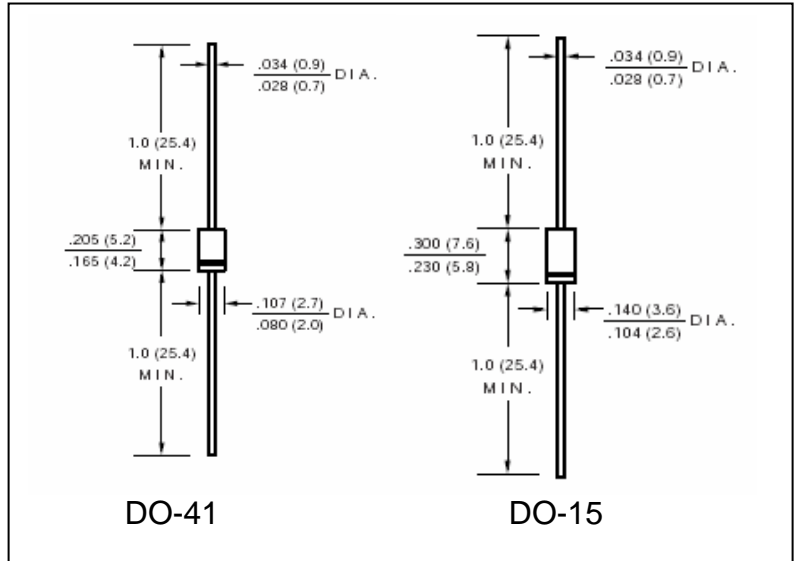
**1200 to 5000 Volts
0.2 to 0.5 Ampere**

FEATURES

- Low Leakage
- High Surge Capacity
- High current capability
- High Temperature soldering guaranteed:
260°C / 10 second, 0.375" (9.5mm) lead length

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V – 0 rate flame retardant
- Polarity: Color Band denotes cathode end
- Lead: Plated axial lead, solderable per MIL – STD-202E Method 208C
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 gram (DO-41)
0.014 ounce, 0.39 gram (DO-15)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	R 1200F	R 1500F	R 1800F	R 2000F	R 2500F	R 3000F	R 4000F	R 5000F	UNIT
Package		DO-41	DO-41	DO-41	DO-41	DO-15	DO-15	DO-15	DO-15	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	1500	1800	2000	2500	3000	4000	5000	Volts
Maximum RMS Voltage	V_{RMS}	840	1050	1260	1400	1750	2100	2800	3500	Volts
Maximum DC Blocking Voltage	V_{DC}	1200	1500	1800	2000	2500	3000	4000	5000	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at $T_A = 50^\circ\text{C}$	$I_{(AV)}$	500				200				mA
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}					30				Amps
Maximum Instantaneous Forward Voltage @ 0.5/0.2A	V_F	2.5		6.0		5.0	6.5			Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	I_R					5.0				μA
Maximum Full Load Reverse Current, Full Cycle average 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{R(AV)}$					100				μA
Maximum Reverse Recovery Time Test conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$	t_{rr}					500				nS
Operating Junction Temperature Range	T_J					(-65 to +150)				$^\circ\text{C}$
Storage Temperature Range	T_{STG}					(-65 to +150)				$^\circ\text{C}$



RATINGS AND CHARACTERISTIC CURVES R1200F THRU R5000F

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

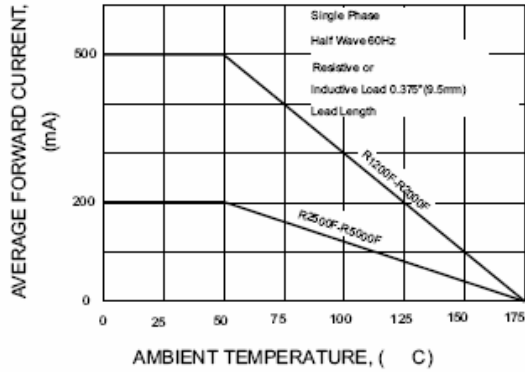


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

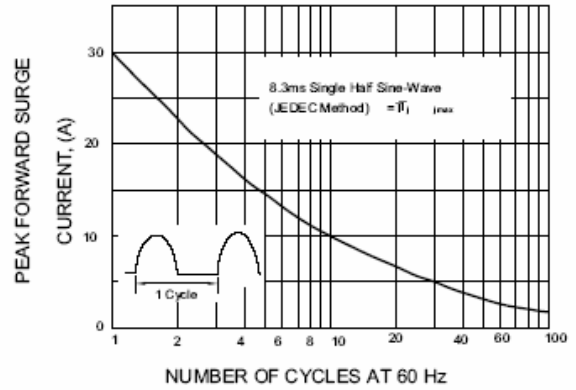


FIG.3-TYPICAL REVERSE CHARACTERISTICS

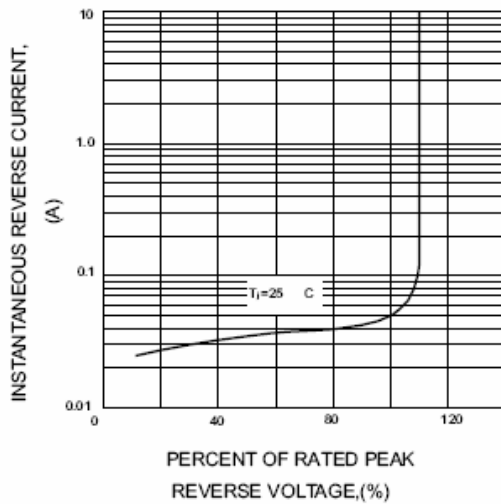
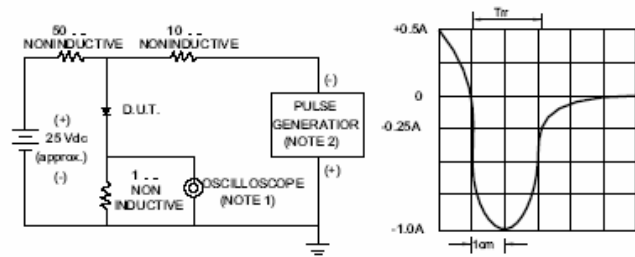


FIG.4-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

SET TIME BASE FOR 50/100ns/cm