



## HIGH VOLTAGE RECTIFIER

**R1200F THRU R5000F**

**VOLTAGE RANGE  
CURRENT**

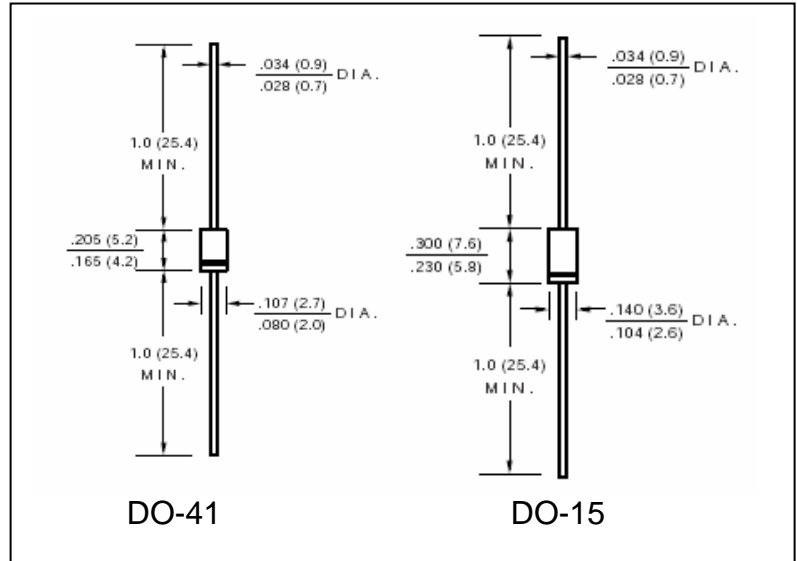
**1200 to 5000 Volts  
0.2 to 0.5 Ampere**

### 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 $T_A = 50^\circ C$	$I_{(AV)}$	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 $T_A = 25^\circ C$	$I_R$					5.0				$\mu A$
Maximum Full Load Reverse Current, Full Cycle average 0.375" (9.5mm) lead length at $T_A = 55^\circ C$	$I_{R(AV)}$					100				$\mu A$
Maximum Reverse Recovery Time Test conditions $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	$t_{rr}$					500				nS
Operating Junction Temperature Range	$T_J$					(-65 to +150)				$^\circ C$
Storage Temperature Range	$T_{STG}$					(-65 to +150)				$^\circ C$



## RATINGS AND CHARACTERISTIC CURVES R1200F THRU R5000F

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

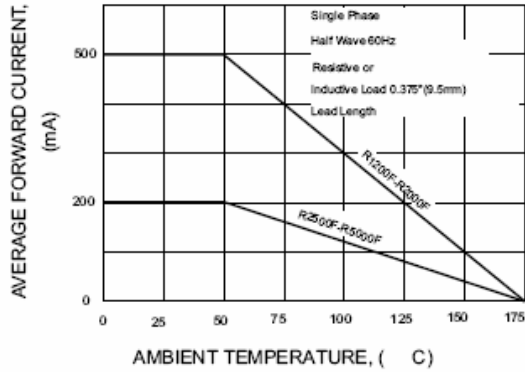


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

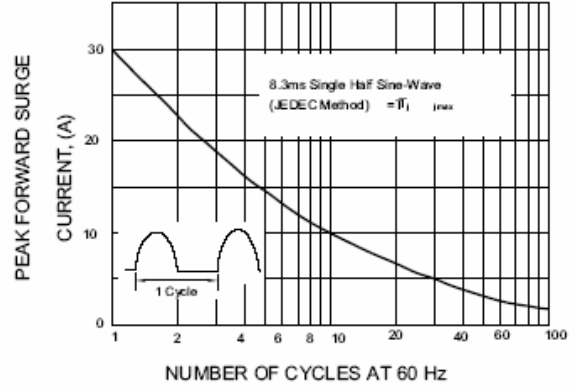


FIG.3-TYPICAL REVERSE CHARACTERISTICS

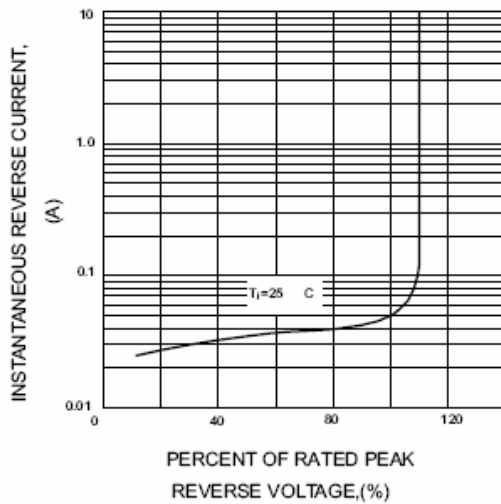


FIG.4-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

