HIGH VOLTAGE SILICON RECTIFIER

R1200F THRU R5000F

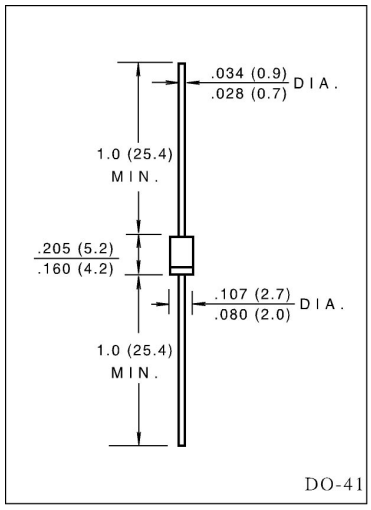
VOLTAGE RANGE 1200 **to** 5000 **Volts**
CURRENT 0.2 - 0.5 **Amperes**

FEATURES

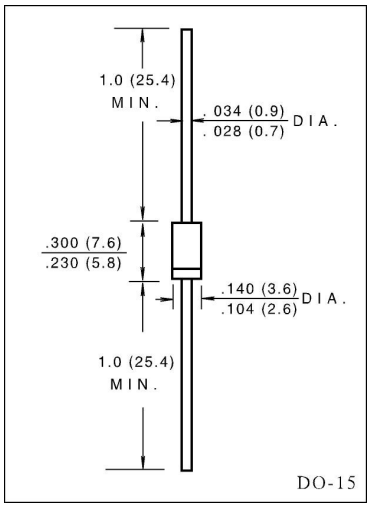
- Fast switching
- Low leakage
- High surge capability
- High current capability
- High temperature soldering guaranteed: 260℃/10 seconds. 0.375" (9.5mm) lead length at 5lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant
- Polarity: Color band denotes cathode end.
- Lead: Plated slug, solderable per MIL - STD 202 E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33grams (DO-41)
  0.014 ounce, 0.39 grams (DO-15)



(R1200F - R20(



(R2500F - R5000F)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	R1200F	R1500F	R1800F	R2000F	R2500F	R3000F	R4000F	R5000F	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	1500	1800	200	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℃	$I_{(AV)}$	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 Drop at 0.5A / 0.2A	V_F	2.5			6.0		5.0	6.5		Volts
Maximum DC Reverse Current at rated DC blocking voltage TA = 25℃	I_R	5.0								μA
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at T_A = 55℃	$I_{R(AV)}$	100								
Maximum Reverse Recovery Time (Note 1)`	t_{rr}	500								nS
Operating and Storage Temperature Range	T_J, T_{STG}	(-65 to +150)								℃

NOTES:

1. Test condition : I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A

RATINGS AND CHARACTERISTIC CURVES R1200F THRU R5000F

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

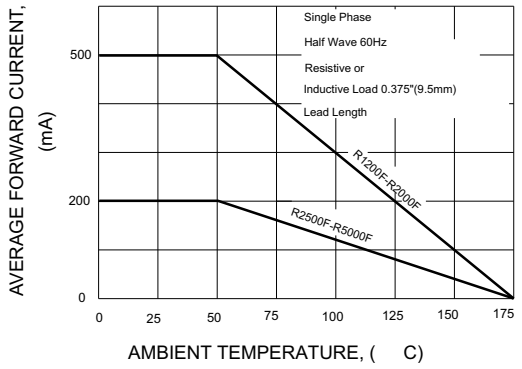


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

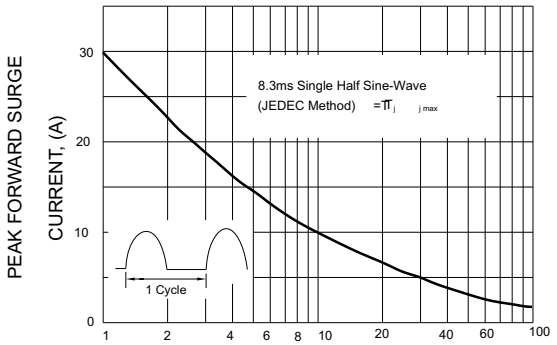


FIG.3-TYPICAL REVERSE CHARACTERISTICS

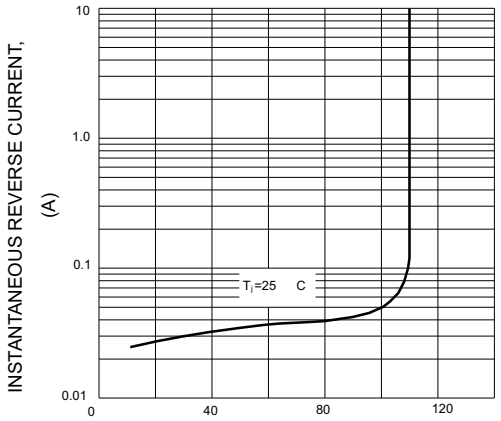
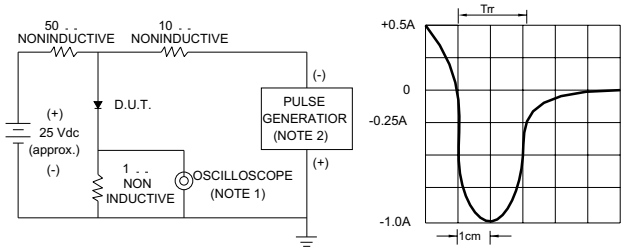


FIG.4-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms