THE DATASHEET OF

R2000FG

RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

R2000FG

SURFACE MOUNT GLASS PASSIVATED HIGH VOLTAGE FAST RECOVERY RECTIFIER

VOLTAGE RANGE 2000 Volts CURRENT 0.5 Ampere

FEATURES

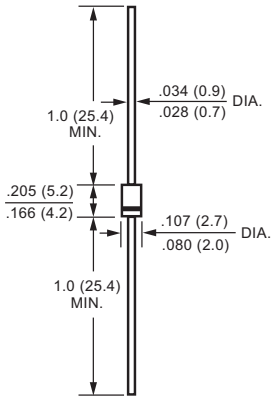
*Fast switching
*Low leakage
*High current capability
*High surge capability
*High reliability
*Glass passivated junction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.336 gram



DO-41



Dimensions in inches and (millimeters)

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 T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	R2000FG	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	2000	Volts
Maximum RMS Volts	V_{RMS}	1400	Volts
Maximum DC Blocking Voltage	V_{DC}	2000	Volts
Maximum Average Forward Rectified Current at T_A = 55°C	I_O	500	mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	20	Amps
Typical Current Squarad Time	I^2t	1.66	A^2S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	65	°C/W
	$R_{\theta JL}$	30	
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175	°C

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

CHARACTERISTICS		SYMBOL	R2000FG	UNITS
Maximum Instantaneous Forward Voltage at 0.1A DC		V_F	2.5	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T_A = 25°C	I_R	1.0	uAmps
	@ T_A = 150 °C		500	uAmps
Maximum Reverse Recovery Time (Note2)		trr	300	nSec

NOTES : 1. Thermal Resistance : Mounted on PCB.
2.Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A

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RATING AND CHARACTERISTIC CURVES (R2000FG)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

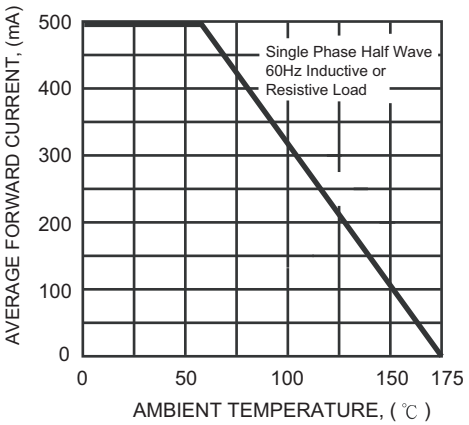


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

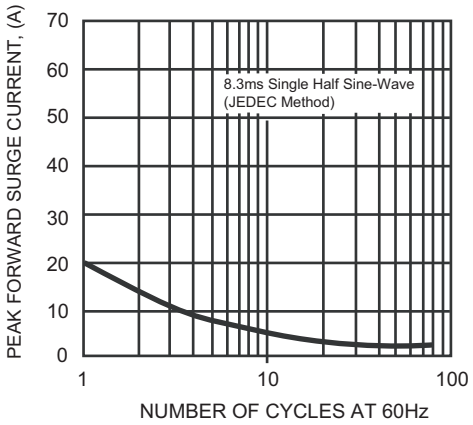
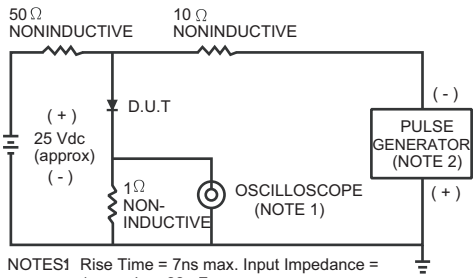
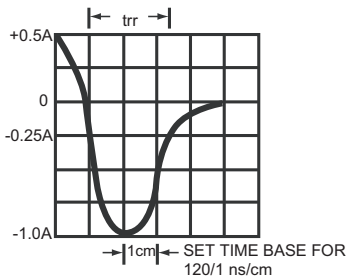


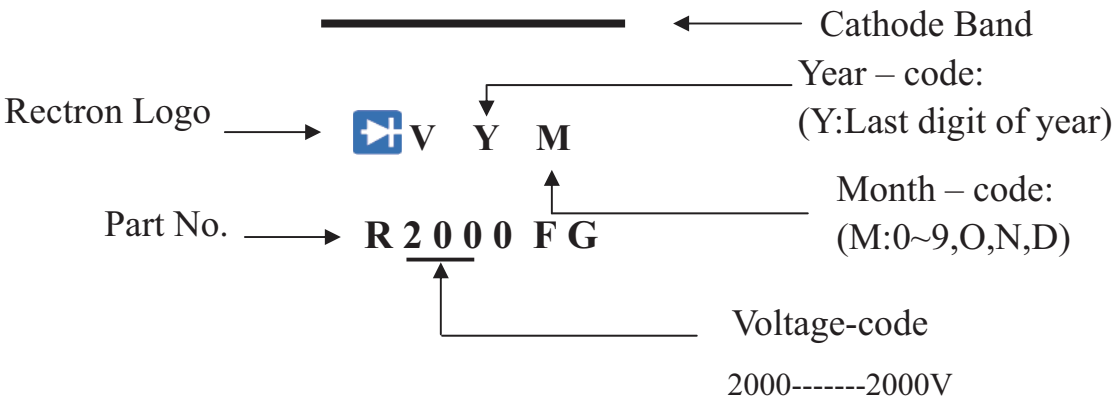
FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22 pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-B	1,000	194*75*21	415*220*255	50,000	16.2

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-T	5,000	5,000	5.0	52	330	355*350*335	20,000	10.49

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-41	-F	3,000	5.0	52	255*73*100	400*268*225	30,000	13.0
DO-41	-E	3,000	5.0	26	256*48*94	365*270*217	42,000	12.41

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