

1N5820 THRU 1N5822

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 3.0 Ampere

FEATURES

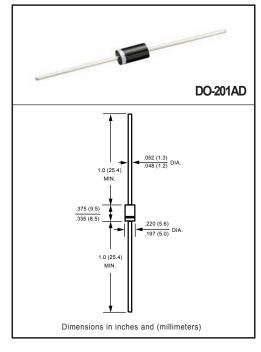
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capabitity
- * High surge capabitity
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.18 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^{\circ}$ 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 (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T _L =95°C	Io	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}		Amps		
Typical Thermal Resistance (Note 3)	R _θ JA	40			° C/W
	R ₀ JL	10			
Typical Junction Capacitance (Note 1)	CJ		pF		
Operating Temperature Range	TJ		۰C		
Storage Temperature Range	T _{STG}		°C		

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

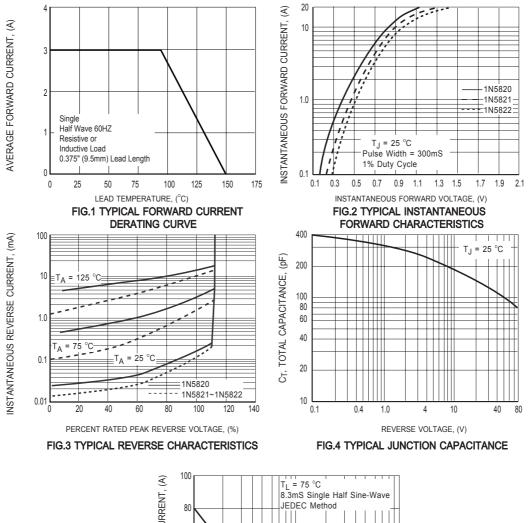
CHARACTERISTICS		SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC		VF	.475	.500	.525	Volts
Maximum Instantaneous Forward Voltage at 9.4A DC		VF	.850	.900	.950	Volts
Maximum Average Reverse Current	@T _A = 25°C	la la	0.2			mAmps
at Rated DC Blocking Voltage (Note 4)	@T _A = 100°C	IR IR		mAmps		

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

- 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
- 3. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.
- 4. Measured at Pulse Width 300mS, Duty 2%.

2006-11 REV:B

RATING AND CHARACTERISTICS CURVES (1N5820 THRU 1N5822)



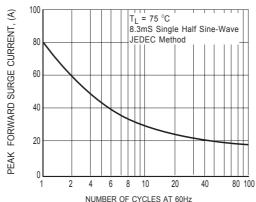


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.

