



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1N5820

THRU

1N5822

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 40 Volts

CURRENT - 3.0 Amperes

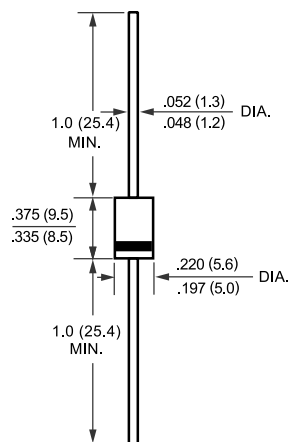
FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.18 grams

DO-27



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%.

		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		I _O	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	80			Amps
Maximum Instantaneous Forward Voltage at 3.0A DC (Note 1)		V _F	.475	.500	.525	Volts
Maximum Instantaneous Forward Voltage at 9.4A DC (Note 1)		V _F	.850	.900	.950	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 1)	@TA = 25°C	I _R	2.0			mAmps
	@TA = 100°C		20			
Typical Thermal Resistance (Note 2)		R _{θJA}	28			°C/W
Typical Junction Capacitance (Note 3)		C _J	250			pF
Storage and Operating Temperature Range		T _J , T _{STG}	-65 to + 125			°C

NOTES : 1. Measured at Pulse Width 300 μs , Duty 2%.

2. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5"(12.7mm) Lead Length.

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

RATING AND CHARACTERISTIC CURVES (1N5820 THRU 1N5822)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

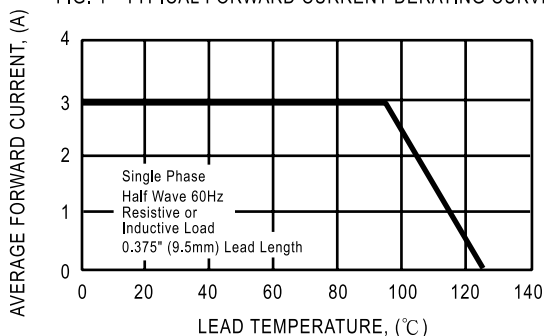


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

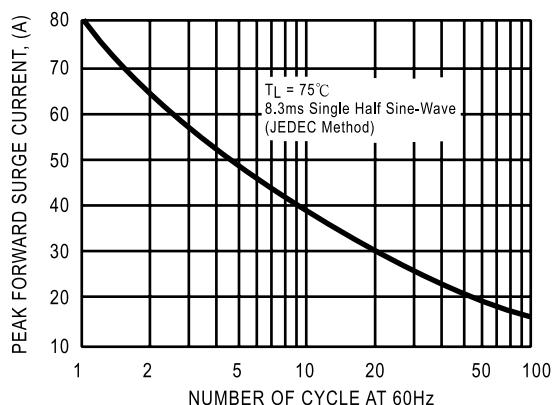


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

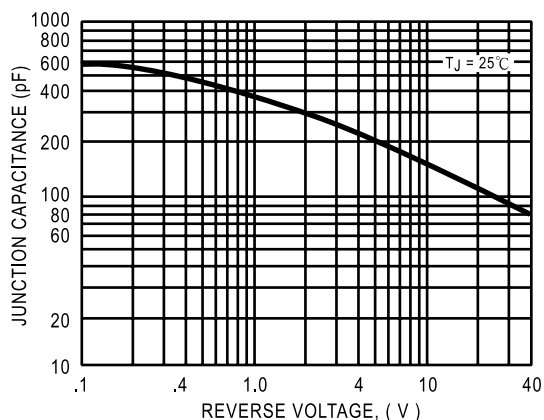


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

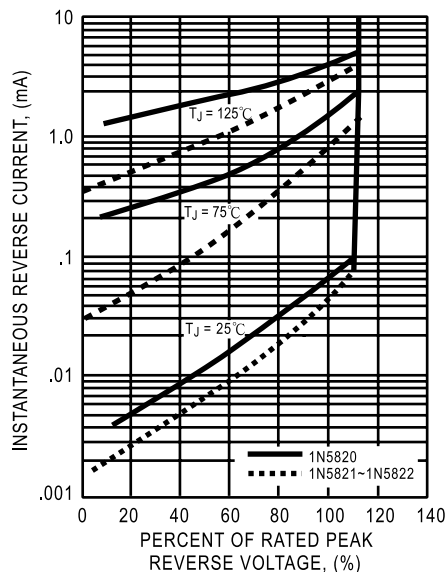
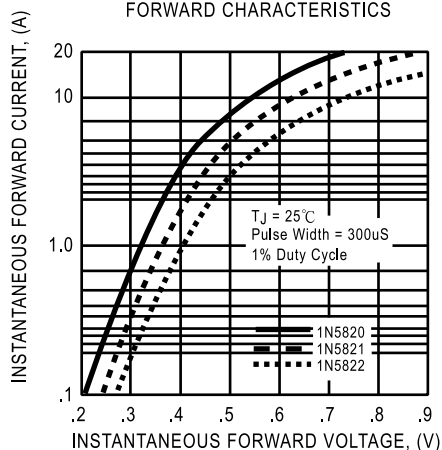


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



DC COMPONENTS CO., LTD.