



*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
- \* High current capability
- \* High speed switching
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

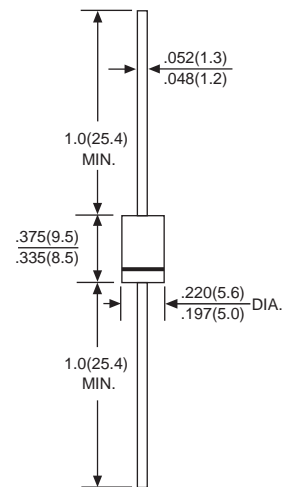
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.33 gram

**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%.



DO-27



Dimensions in inches and (millimeters)

	SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	Vdc	20	30	40	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length	IO	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80			Amps
Maximum Instantaneous Forward Voltage at 3.0A DC (Note 1)	VF	.475	.500	.525	Volts
Maximum Instantaneous Forward Voltage at 9.4A DC (Note 1)	VF	.850	.900	.950	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 1)	@ TA = 25°C	2.0			mAmps
	@ TA = 100°C	20			
Typical Thermal Resistance (Note 2)	RθJA	28			°C/W
Typical Junction Capacitance (Note 3)	CJ	250			pF
Storage and Operating Temperature Range	TJ, TSTG	-55 to +125			°C

NOTES :1. Measured at Pulse Width 300 uS, 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

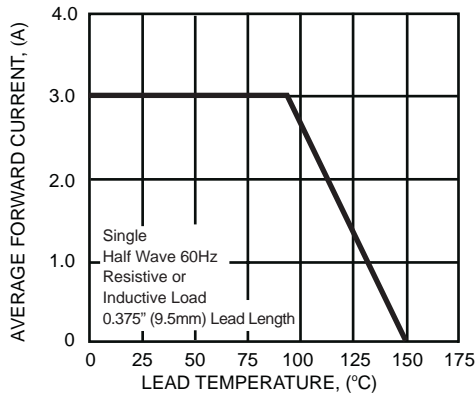


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

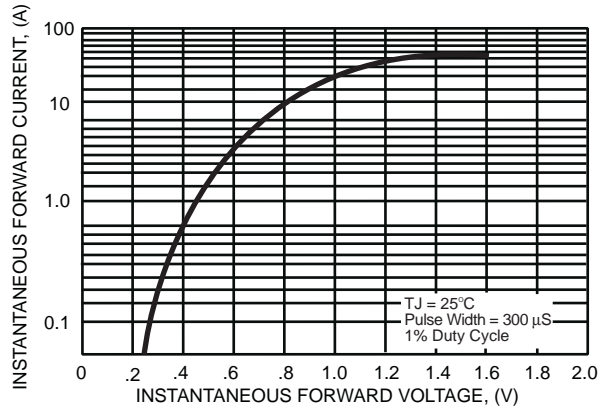


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

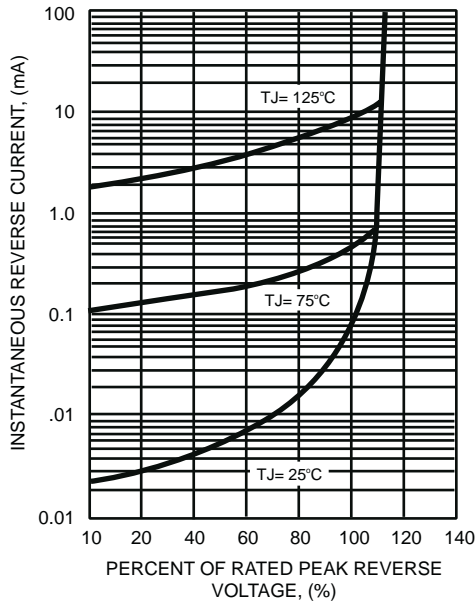


FIG. 4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

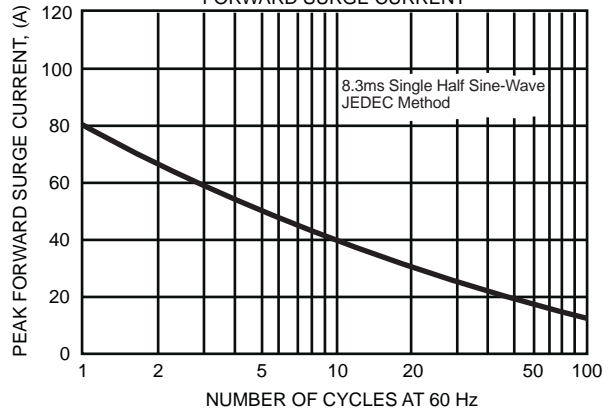
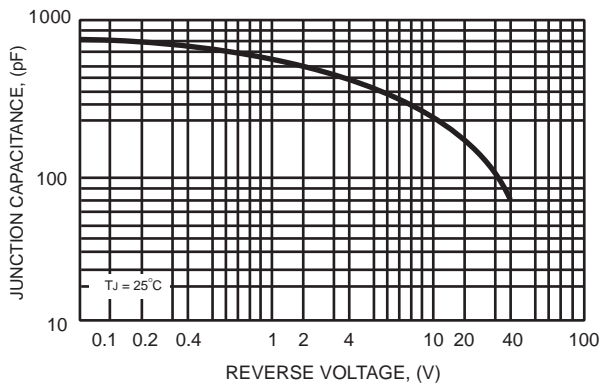


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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