SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **40** Volts
FORWARD CURRENT - **3.0** Amperes

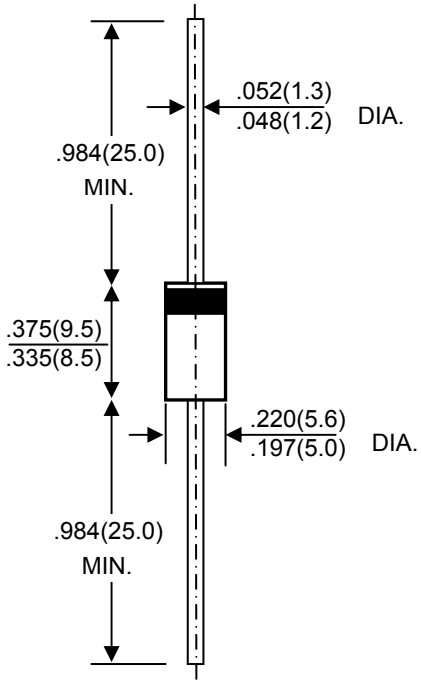
FEATURES

- Metal-Semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low vlotage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces , 1.1 grams
- Mounting position: Any

DO- 27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1N5820	1N5821	1N5822	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current 0.375″ (9.5mm) Lead Lengths @T_L=95 ℃	$I_{(AV)}$	3.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	80			A
Maximum Forward Voltage at 3.0A DC	V_F	0.45	0.55	0.60	V
Maximum Forward Voltage at 9.4A DC	V_F	0.850	0.900	0.950	V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Bolcking Voltage @T_J=100℃	I_R	1.0 20			mA
Typical Junction Capacitance (Note1)	C_J	250			pF
Typical Thermal Resistance (Note2)	$R_{\theta JL}$	20			℃/W
Operating Temperature Range	T_J	-55 to +150			℃
Storage Temperature Range	T_{STG}	-55 to +150			℃

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to lead,

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FIG. 1 – FORWARD CURRENT DERATING CURVE

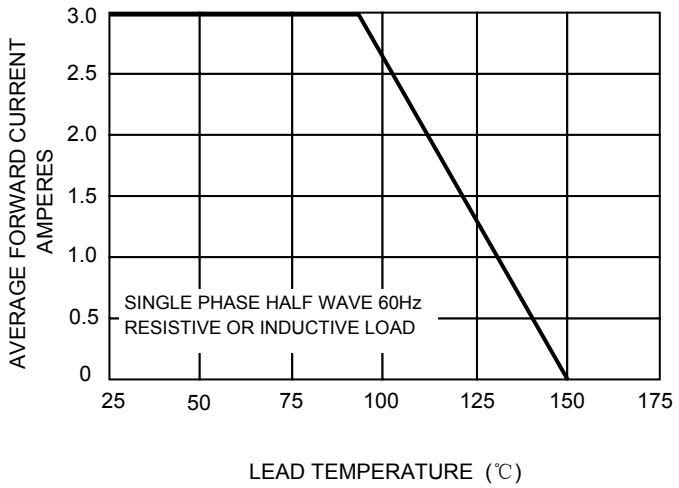


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

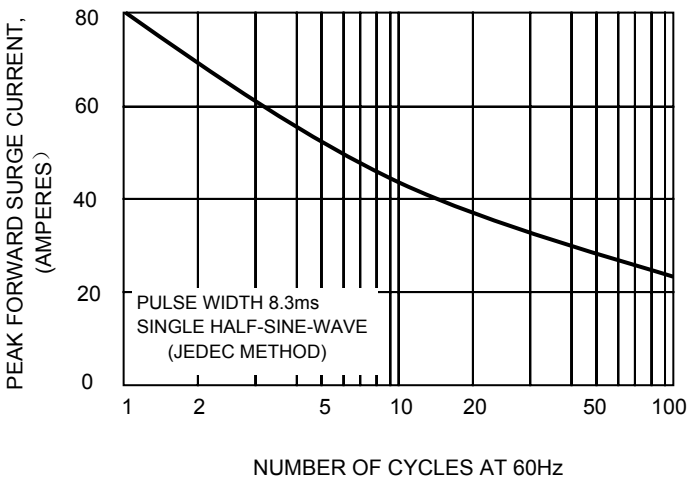


FIG.3 – TYPICAL JUNCTION CAPACITANCE

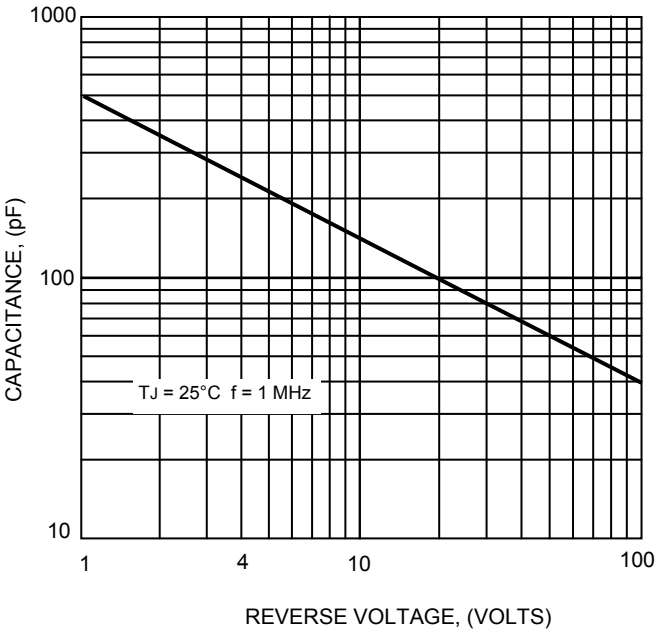
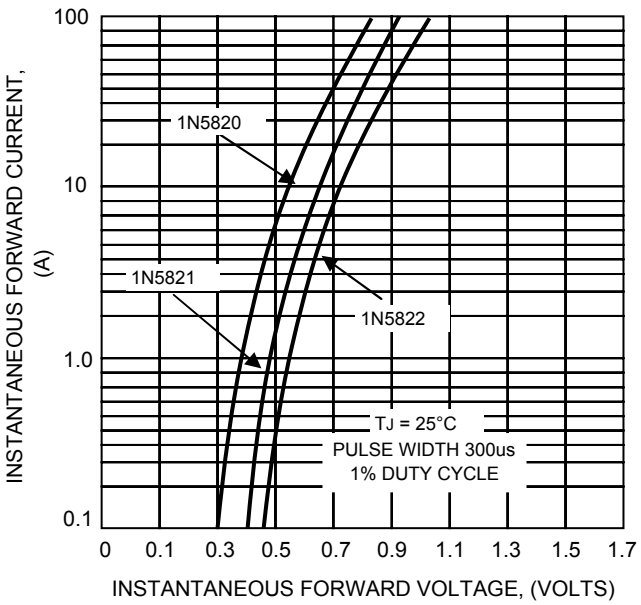


FIG.3-TYPICAL FORWARD CHARACTERISTICS



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