

1N5820 THRU 1N5822

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 40V

CURRENT: 3.0A

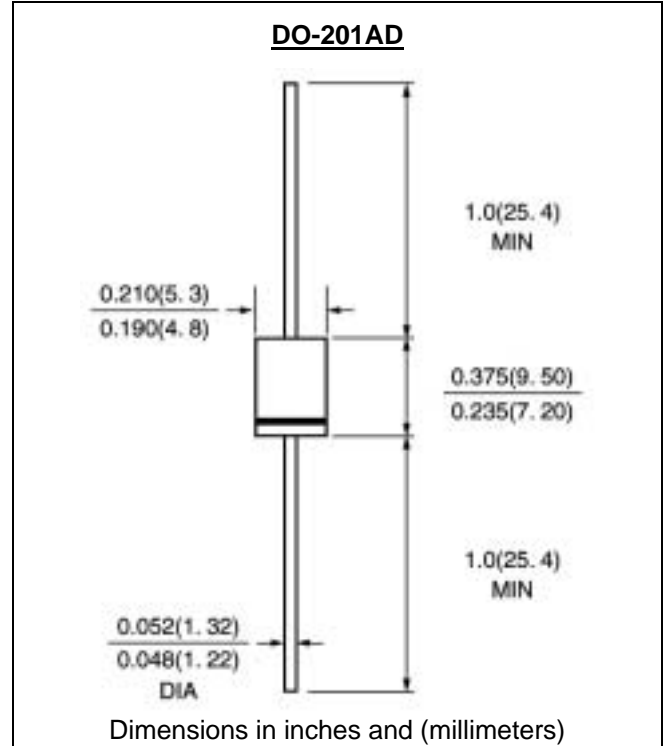


FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability
High temperature soldering guaranteed
250°C /10sec/0.375" lead length at 5 lbs tension

MECHANICAL DATA

Terminal: Plated axial leads solderable per
MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame
Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	1N 5820	1N 5821	1N 5822	units
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 3/8" lead length at T _L =95°C	I _{f(av)}	3.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	80.0			A
Maximum Forward Voltage at 3.0A DC (Note 3)	V _f	0.475	0.500	0.525	V
Maximum Forward Voltage at 9.4A DC (Note 3)	V _f	0.850	0.900	0.950	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage (Note 3) Ta =100°C	I _r	2.0 20.0			mA mA
Typical Junction Capacitance (Note 1)	C _j	250			pF
Typical Thermal Resistance (Note 2)	R(ja)	40			°C /W
Storage and Operating Junction Temperature	T _{stg} , T _j	-55 to +125			°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted
3. Pulse test 300µs pulse Width, 1%Duty Cycle

Fig. 1 - Forward Current Derating Curve

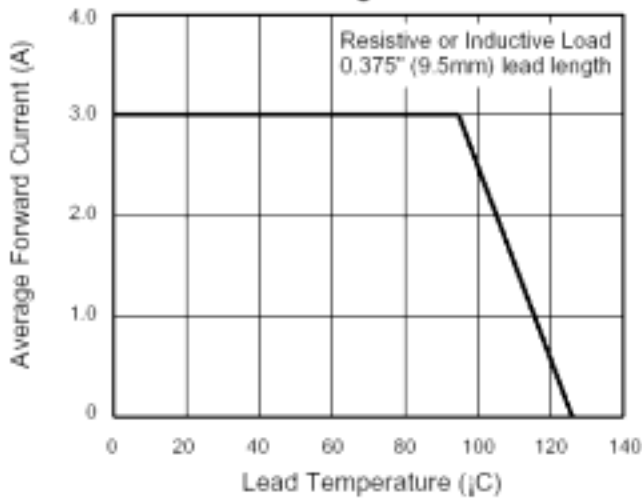


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

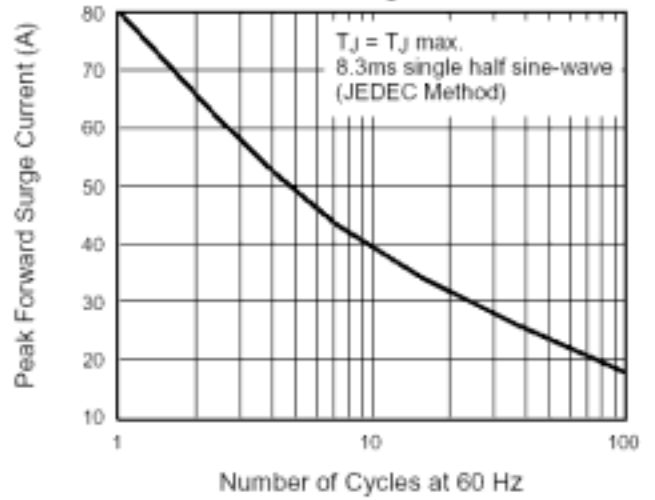


Fig. 3 - Typical Instantaneous Forward Characteristics

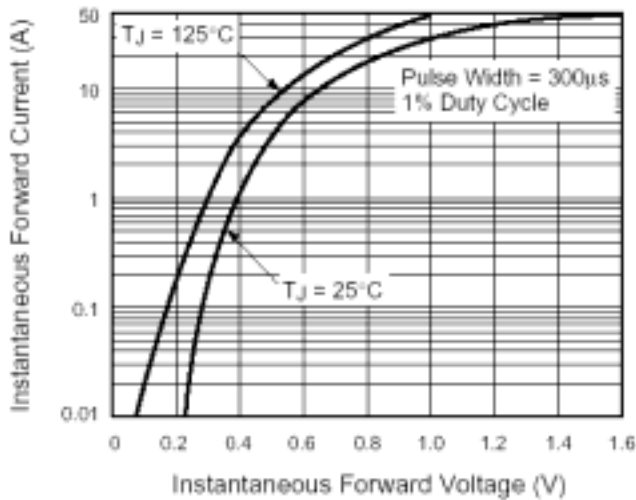


Fig. 4 - Typical Reverse Characteristics

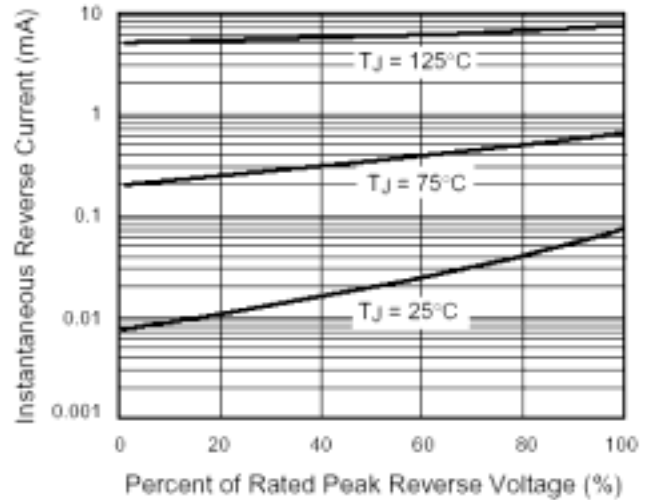


Fig. 5 - Typical Junction Capacitance

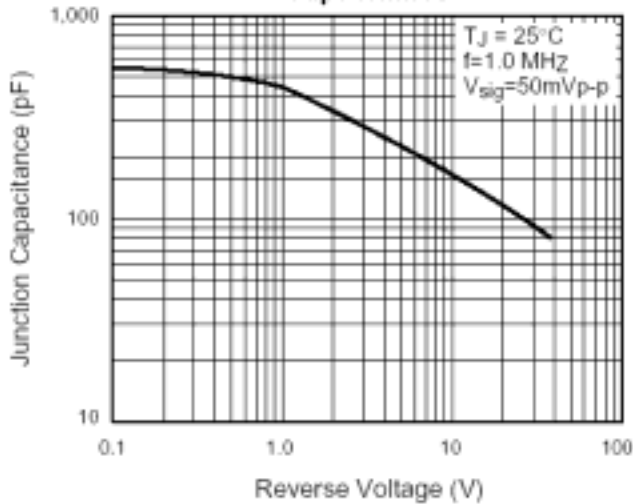


Fig. 6 - Typical Transient Thermal Impedance

