



DO-201AD SCHOTTKY BARRIER DIODE

Reverse Voltage -20 to 40 Volts

Forward Current -3.0 Ampere

1N5820-1N5822

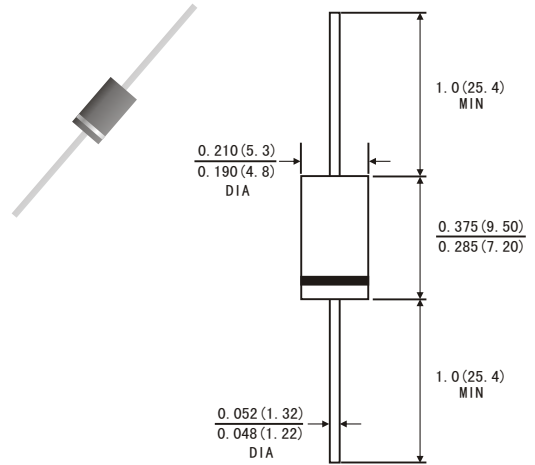
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce, 1.12 grams

DO-201AD (DO-27)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	1N 5820	1N 5821	1N 5822	Units
Maximum repetitive 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 0.375"(9.5mm)lead length at T _L =95°C	I(AV)	3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T _L =75°C	I _{FSM}	80.0			Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)	V _F	0.475	0.500	0.525	Volts
Maximum instantaneous forward voltage at 9.4 A(Note 1)	V _F	0.850	0.900	0.950	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _A =25°C	0.5			mA
	T _A =100°C	20.0			
Typical thermal resistance(Note 2)	R _{θ JA}	40.0			°C/W
	R _{θ JL}	10.0			
Operating junction and storage temperature range	T _J /T _{STG}	-65 to +150			°C

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted , 0.500"(12.7mm)lead length with 2.5X2.5(63.5X63.5mm)copper pads

RATINGS AND CHARACTERISTIC CURVES 1N5820 THRU 1N5822

FIG.1-FORWARD CURRENT DERATING CURVE

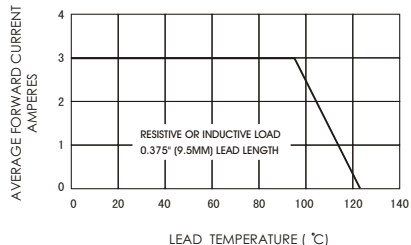


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

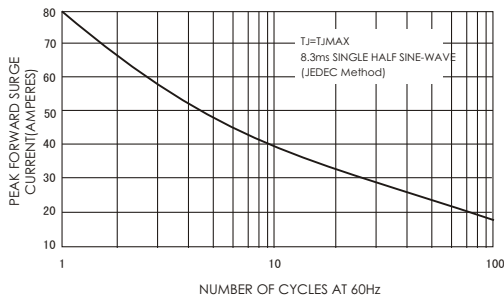


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

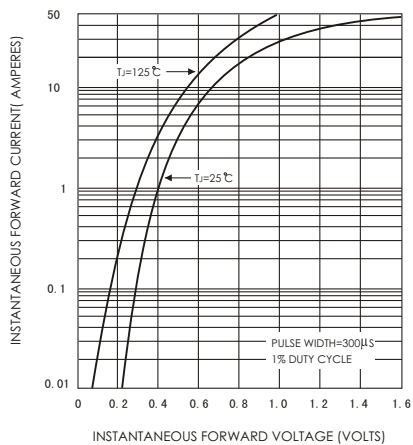


FIG.4-TYPICAL REVERSE CHARACTERISTICS

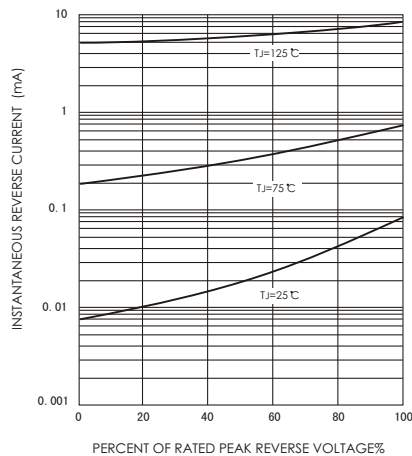


FIG.5-TYPICAL JUNCTION CAPACITANCE

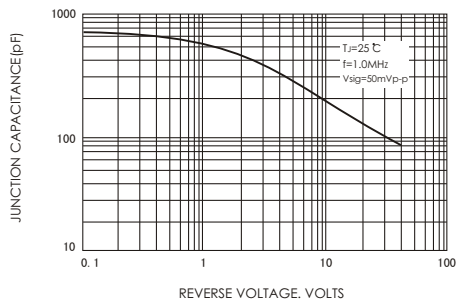


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

