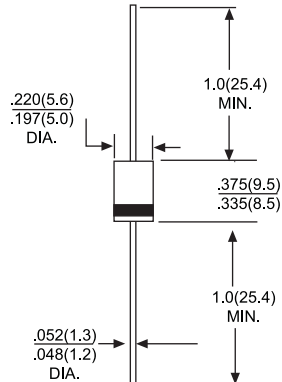


1N5820 THRU 1N5822

3.0 AMPS. SCHOTTKY BARRIER RECTIFIERS

Voltage Range
20 to 40 Volts
Current
3.0 Amperes

DO-201AD



Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data

- Cases: DO-201AD molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375"(.9.5mm) lead lengths at 5 lbs.(2.3kg) tension
- Weight: 1.10 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		1N5820	1N5821	1N5822	UNIT
Maximum Repetitive 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 .375(9.5mm)Lead Length @TL=90°C	I _{F(AV)}	3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80			A
Maximum Instantaneous Forward Voltage @3.0A	V _F	0.475	0.500	0.525	V
Maximum Instantaneous Forward Voltage @9.0A	V _F	0.850	0.900	0.950	V
Maximun DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C	I _R	2.0 20			mA
Typical Thermal Resistance(Note 1)	R _{θJA}	40			°C/W
Typical Junction Capacitance (Note 2)	C _J	250			pF
Operating Temperature Range	T _J	-55 to+125			°C
Storage Temperature Range	T _{STG}	-55 to+125			°C

NOTES: 1. Thermal Resistance from Junction to Ambient Vertical PC Board Mointing,0.375*(9.5mm) Lead Length.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

1N5820 THRU 1N5822

3.0 AMPS. SCHOTTKY BARRIER RECTIFIERS

Voltage Range
20 to 40 Volts
Current
3.0 Amperes

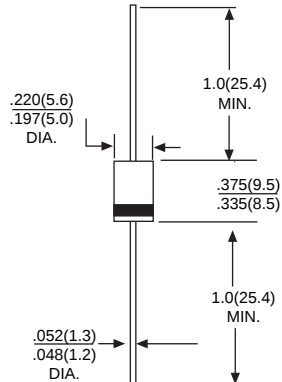
DO-201AD

Features

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

Mechanical Data

- *Cases: DO-201AD molded plastic
- *Epoxy: UL 94V-O rate flame retardant
- *Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- *Polarity: Color band denotes cathode end
- *High temperature soldering guaranteed:
250°C/10 seconds/.375"(.9.5mm) lead
lengths at 5 lbs.(2.3kg) tension
- *Weight: 1.10 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		1N5820	1N5821	1N5822	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
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Maximum Average Forward Rectified Current .375(9.5mm)Lead Length @TL=90°C	I _{F(AV)}	3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80			A
Maximum Instantaneous Forward Voltage @3.0A	V _F	0.475	0.500	0.525	V
Maximum Instantaneous Forward Voltage @9.0A	V _F	0.850	0.900	0.950	V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C	I _R	2.0 20			mA
Typical Thermal Resistance(Note 1)	R*JA	40			°C/W
Typical Junction Capacitance (Note 2)	C _J	250			pF
Operating Temperature Range	T _J	-55 to+125			°C
Storage Temperature Range	T _{STG}	-55 to+125			°C

NOTES: 1. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting,0.375"(9.5mm) Lead Length.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATING AND CHARACTERISTIC CURVES

1N5820 THRU 1N5822

FIG.1- FORWARD CURRENT DERATING CURVE

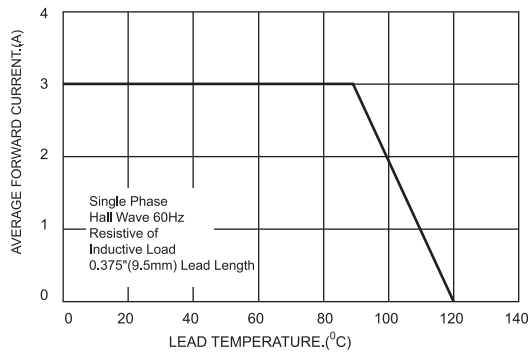


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

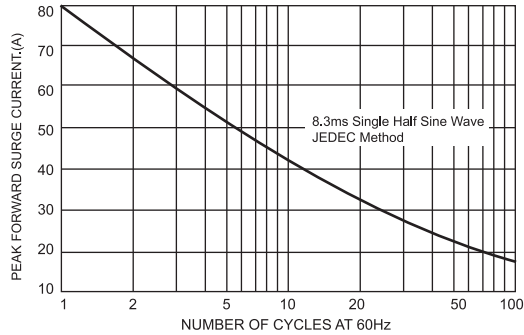


FIG.5-TYPICAL JUNCTION CAPACITANCE

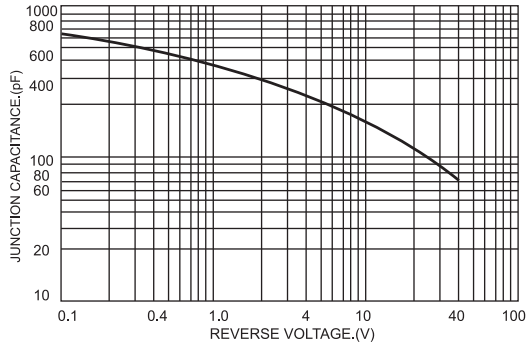


FIG.2-TYPICAL REVERSE CHARACTERISTICS

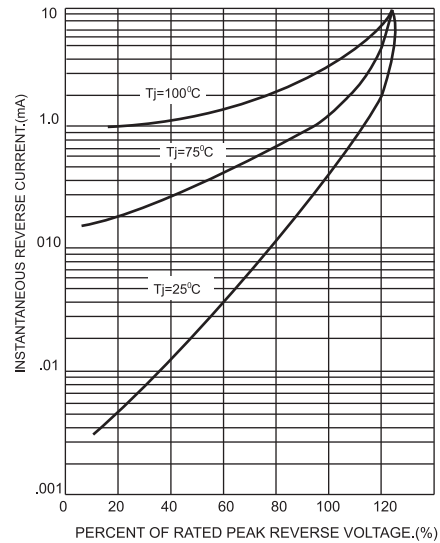
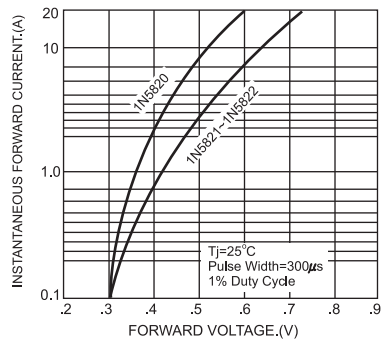


FIG.4-TYPICAL FORWARD CHARACTERISTICS



RATING AND CHARACTERISTIC CURVES

1N5820 THRU 1N5822

FIG.1- FORWARD CURRENT DERATING CURVE

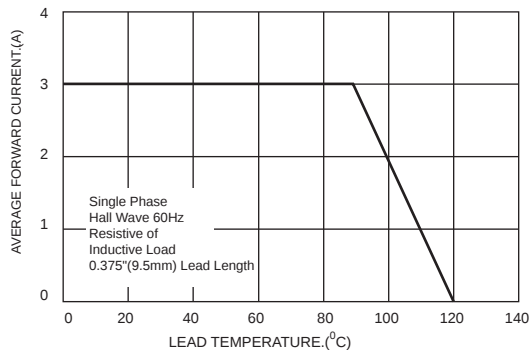


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

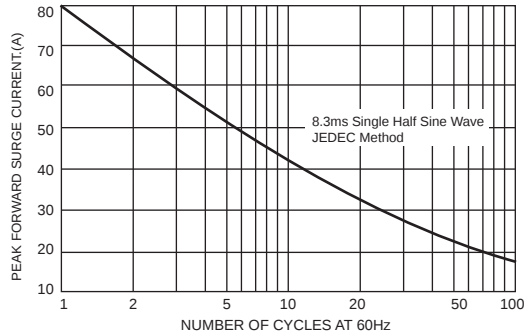


FIG.5-TYPICAL JUNCTION CAPACITANCE

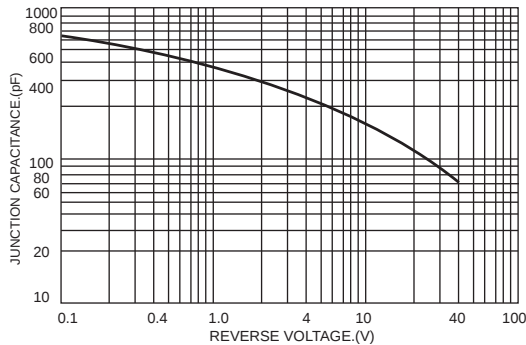


FIG.2-TYPICAL REVERSE CHARACTERISTICS

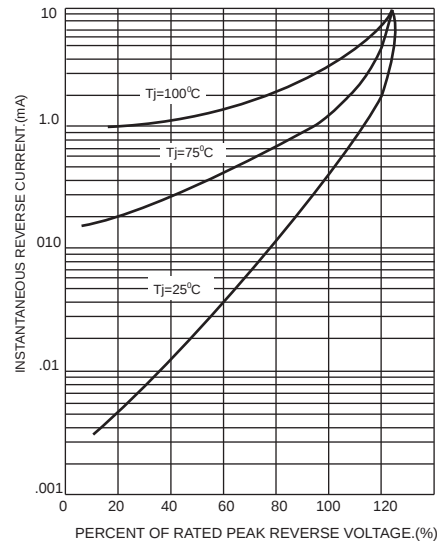


FIG.4-TYPICAL FORWARD CHARACTERISTICS

