

3 AMP SCHOTTKY BARRIER RECTIFIER 1N5820 THRU 1N5822

TECHNICAL SPECIFICATION

FEATURES

- Low power loss, high efficiency
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High current capability and low forward drop
- High surge current capability
- Guard ring for transient protection
- High temperature soldering capability : 250°C/10 seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension
- Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents

MECHANICAL DATA

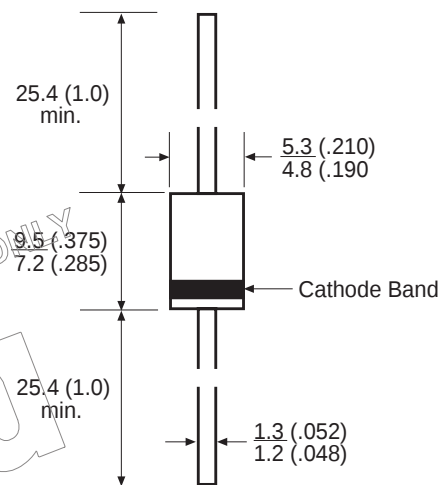
Case	: JEDEC DO-201AD, moulded plastic
Terminals	: Plated axial leads, solderable per MIL-STD-202, Method 208
Polarity	: Colour band denotes cathode end.
Mounting Position	: Any
Weight	: 1.12 grams (0.04ounce)

VOLTAGE
20 to 40 Volts

CURRENT
3.0 Amp

DIMENSIONS - millimeters

DO-201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristics		Symbols	1N5820	1N5821	1N5822	Units
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	20	30	40	V
Maximum RMS Input Voltage		V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage		V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current @ T _L = 95°C (Note 3) I _{F(AV)} 3.0A		I _{F(AV)}	3.0			A
Maximum Average Forward Surge Current, Half Cycle @ 60Hz. Superimposed on rated load JEDEC Method		I _{FSM}	80			A
Storage and Operating Junction Temperature Range		T _j T _{STG}	-60 to + 125			V
Maximum Forward Voltage Drop (Note 1)	@ I _F = 3A	V _F	0.475	0.500	0.525	V
	@ I _F = 9.4A	V _F	0.850	0.900	0.950	V
Maximum Reverse Leakage Current @ V _{RRM}	@ T _A = 25°C	I _R	2.0			mA
	@ T _A = 100°C	I _R	20			mA
Typical Thermal Resistance, Junction to Ambient (Note 1)		R _{thA}	40			°C/W

Notes :

1. Measured at pulse width 300ms, 2% duty cycle.
2. Thermal Resistance from Junction to Ambient with vertical mounting to pc board (9.5mm lead Length).
3. Valid provided that leads are kept at specified temperature at a distance of 9.5mm from case.

RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

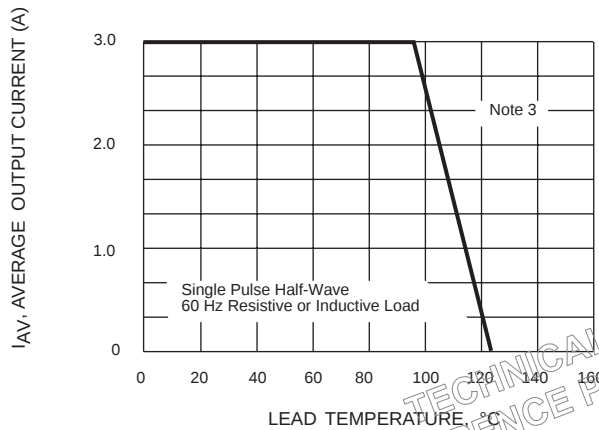


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

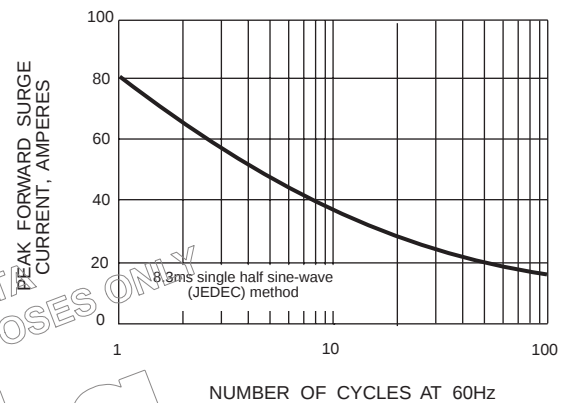


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

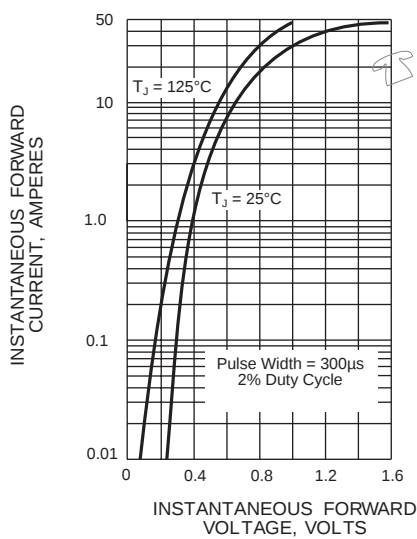


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

