

IN5820 thru IN5822

MINIATURE SCHOTTKY BARRIER RECTIFIER

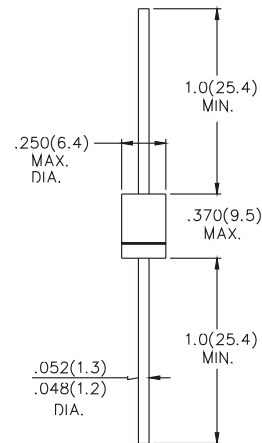


**CHENG-YI
ELECTRONIC**



VOLTAGE RANGE
20 TO 40 Volts
CURRENT
3.0 Amperes

DO-201AD



FEATURES

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

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: MIL-STD-202 method 208 guaranteed
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At T_A=25°C unless otherwise noted)

Ratings	Symbol	IN5820	IN5821	IN5822	UNITS
Maximum Recurrent 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 .375" (9.5mm) lead length at T _L =95°C	I _O		3.0		Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) T _L =75°C	I _{FSM}		80		Amps
Typical Thermal Resistance (Note 2)	R _{θJC}		28		°C / W
Typical Junction Capacitance (Note 3)	C _J		250		pF
Storage and Operating Temperature Range	T _{STG}		-65 to +125		°C

ELECTRICAL CHARACTERISTICS (At T_A=25°C unless otherwise noted)

Characteristics	Symbol	IN5820	IN5821	IN5822	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC	V _F	.475	.500	.525	Volts
Maximum Forward Voltage at 5.0A DC	V _F	.850	.900	.950	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _A =25°C		2.0		mAmps
	@T _C =100°C		2.0		mAmps

Notes : 1. Measured at Pulse Width 300 us, Duty Cycle 2%.

2. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.

3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

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RATING AND CHARACTERISTICS CURVES IN5820 THRU IN5822

Fig. 1 - FORWARD CURRENT DERATING CURVE

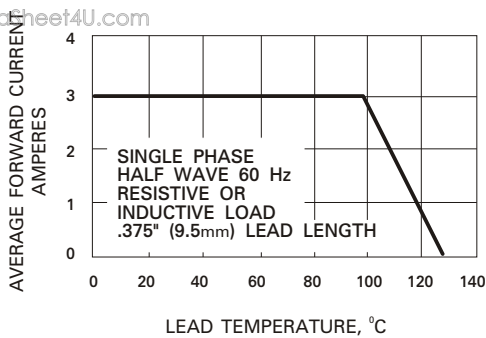


Fig. 2 - TYPICAL FORWARD CHARACTERISTICS

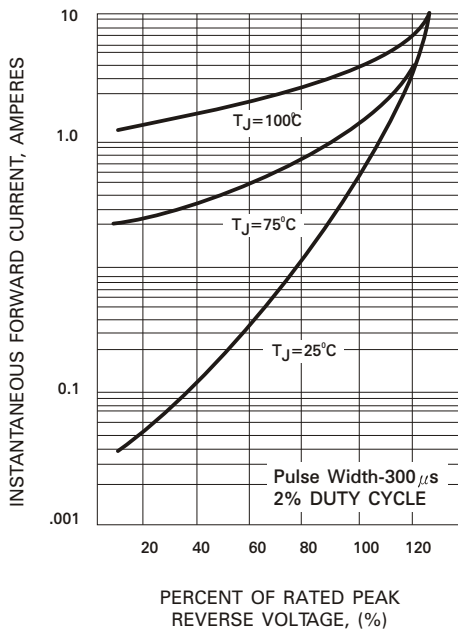


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

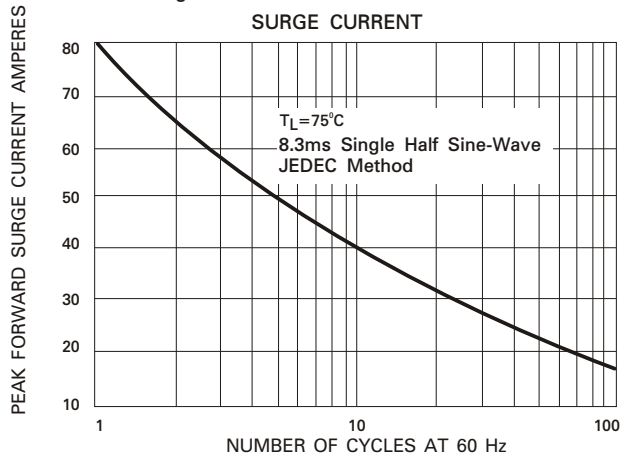


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

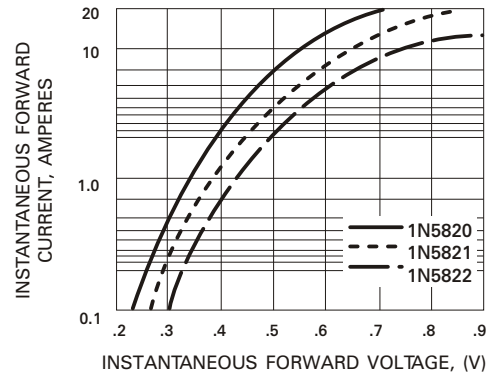


Fig. 5 - TYPICAL JUNCTION CAPACITANCE

