

MINIATURE SCHOTTKY BARRIER RECTIFIER

IN5820 thru IN5822 Vishaymas General Semiconductor

FEATURES

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

MECHANICAL DATA

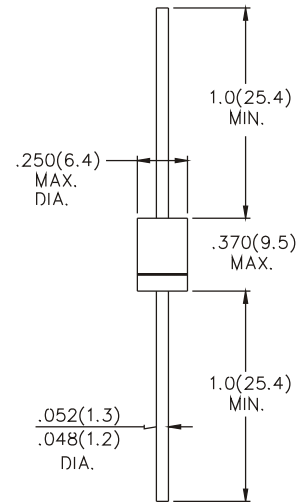
Case: Molded plastic

Epoxy: UL 94V-0 rate flame retardant

Lead: MIL-STD-202 method 208 quaranteed

Mounting position: Any

DO-27



Dimensions in inches and(millimeters)

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 TA=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 $T_L=95^\circ C$	I_o	3.0			Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) $T_L=75^\circ C$	I_{FSM}	80			Amps
Typical Thermal Resistance (Note 2)		28			$^\circ C / W$
Typical Junction Capacitance (Note 3)	C_J	250			pF
Storage and Operating Temperature Range	T_{STG}	-65 to +125			$^\circ C$

ELECTRICAL CHARACTERISTICS (At TA=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	@ $T_c=100^\circ C$	2.0			mAmps
	@ $T_A=25^\circ C$	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.

Fig. 1 - FORWARD CURRENT DERATING CURVE

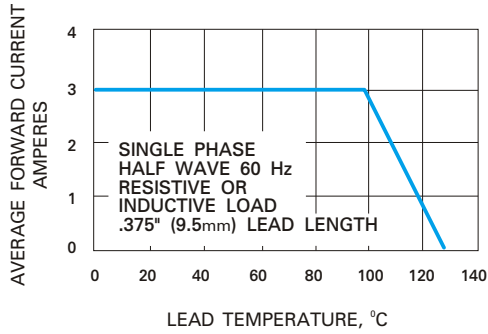


Fig. 2 - TYPICAL FORWARD CHARACTERISTICS

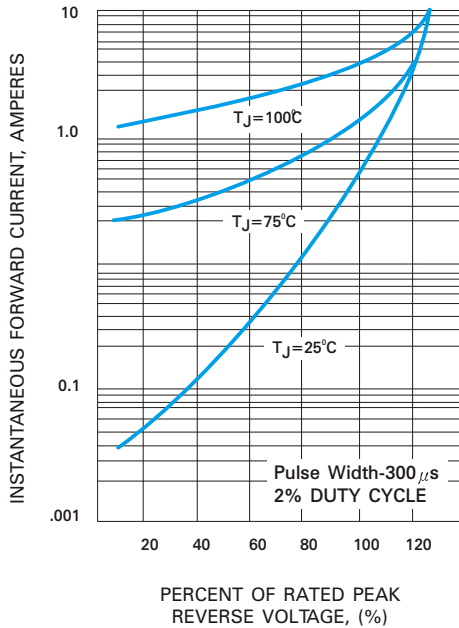


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

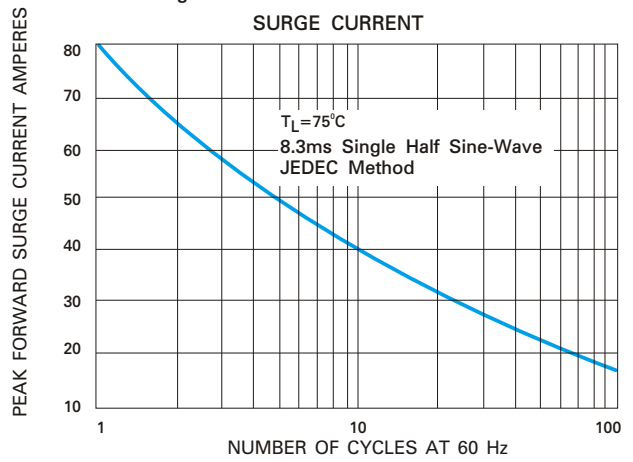


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

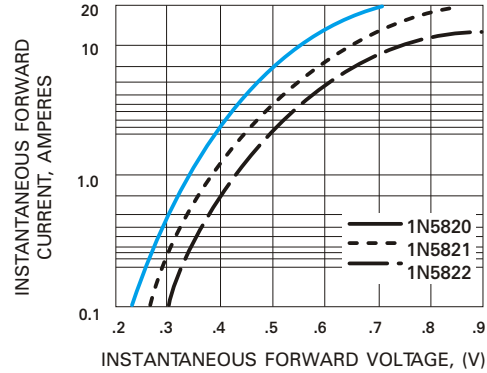


Fig. 5 - TYPICAL JUNCTION CAPACITANCE

