



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206



SCHOTTKY BARRIER RECTIFIER

1N5820 THRU 1N5822

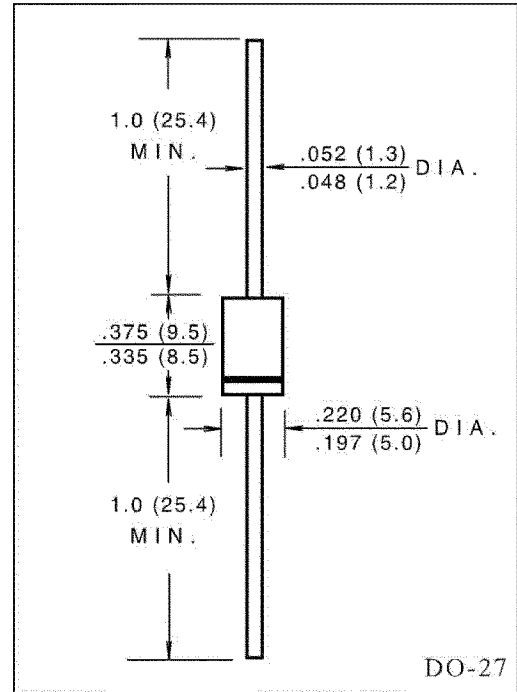
VOLTAGE RANGE 20 to 40 V_o
CURRENT 3.0 Amper

FEATURES

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denoted cathode end.
- Lead: Plastic axial lead, solderable per MIL - STD - 202E
method 208C
- Mounting position : Any
- Weight: 0.042 ounce, 1.19 gram



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%

	SYMBOLS	1N5820	1N5821	1N5822	UNIT
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)	I _{FSM}	80			Amps
Maximum Instantaneous Forward Voltage (Note 1) at	3.0A	V _F	0.475	0.500	Volts
	9.4A		0.850	0.900	
Maximum DC Reverse Current at rate DC blocking voltage (Note 1)	T _A = 25°C	I _R	2.0		mA
	T _A = 100°C		20		
Typical Junction Capacitance (Note 2)	C _j	250			pF
Typical Thermal Resistance (Note 3)	R _{θJA}	40			°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	(-55 to +125)			°C

NOTES:

1. Pulse test: 300 μs pulse width, 1% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 2.5" x 2.5"



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RATINGS AND CHARACTERISTIC CURVES IN5820 THRU IN5822

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

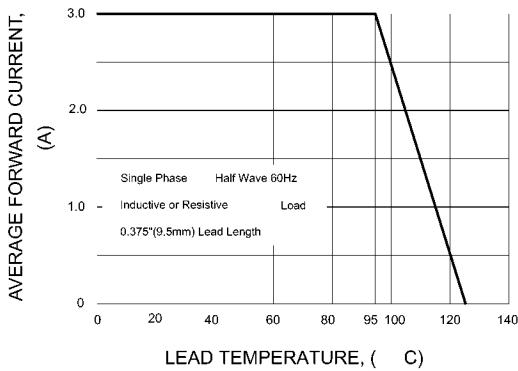


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

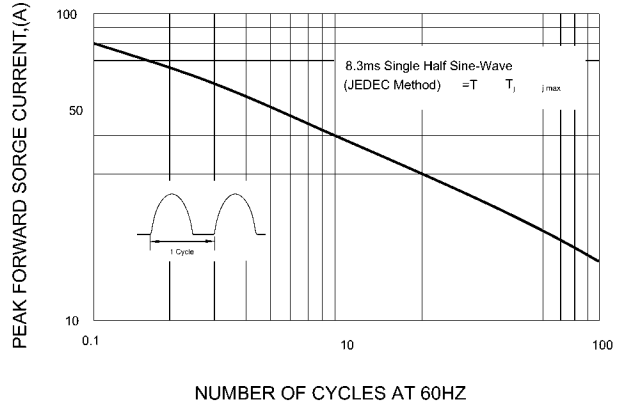


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

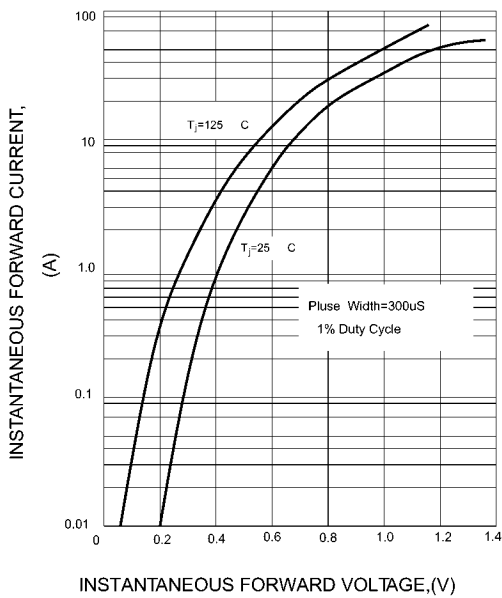


FIG.4-TYPICAL REVERSE CHARACTERISTICS

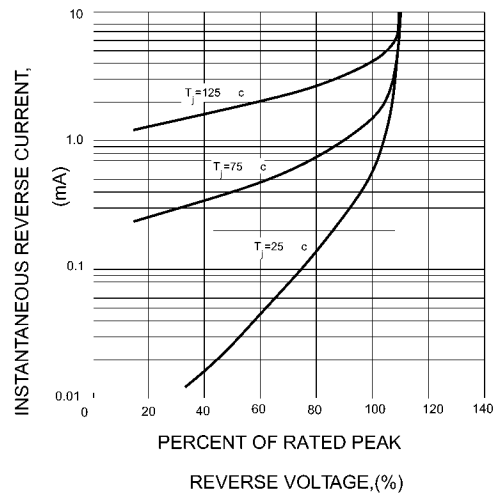


FIG.5-TYPICAL JUNCTION CAPACITANCE

