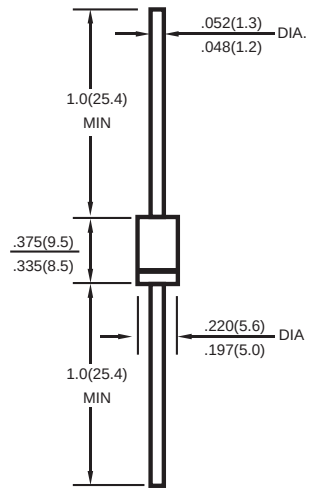
WEJ®

1N5820-5822

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts
CURRENT 3.0 Amperes

DO-27



Dimensions in inches and (millimeters)

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 denotes cathode end
- **Lead:**Plated axial lead ,solderable per MIL-STD-202E method 208C
- **Mounting position:**Any
- **Weight:**0.042 ounce,1.19grams

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	IN5820	IN5821	IN5822	UNITS
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(NOTE1) at	3.0A	V_F	0.475	0.500	0.525	Volts
	9.4A		0.850	0.900	0.950	
Maximum DC Reverse Current at rated DC blocking voltage(NOTE1)	T_A=25°C	I_R	2.0			mAmps
	T_A=100°C		20			
Typical Junction Capacitance(NOTE2)		C_J	250			pF
Typical Thermal Resistance(NOTE3)		$R_{\theta JA}$	40			°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 to +125			°C

NOTES:
1.Pulse test:300μs pulse width,1%duty cycle.
2.Measured at 1MHz and applied reverse voltage of 4.0volts.
3.Thermal resistance from Junction to Ambient P.C.B. Mounted with 0.375” (9.5mm) lead length with 2.5″X2.5″ (63.5X63.5mm)copper pads.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

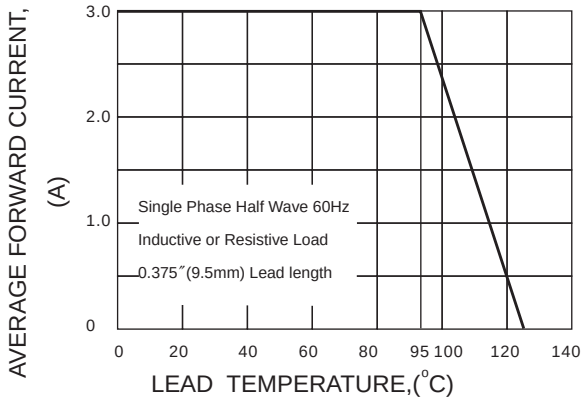


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

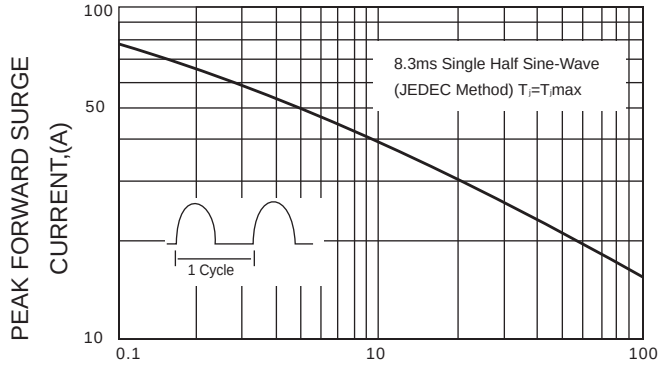


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

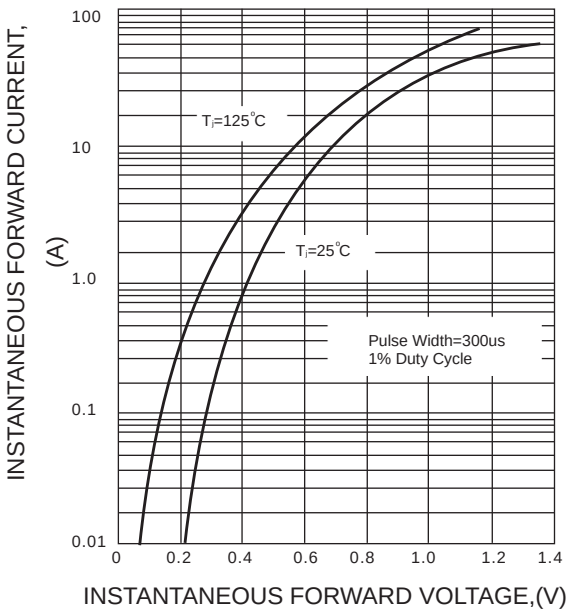


FIG.4-TYPICAL REVERSE CHARACTERISTICS

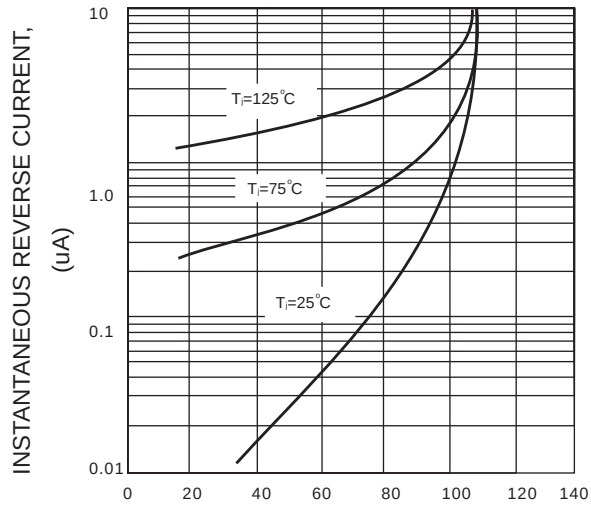


FIG.5-TYPICAL JUNCTION CAPACITANCE