1N5820---1N5822

HIGH VOLAGE RECTIFIERS

VOLTAGE RANGE: 20--- 30 V CURRENT: 3.0 A

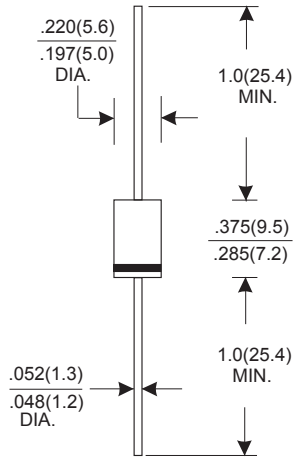
FEATURES

- ●High surge current capability
- ●Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding
- ●High current operation 3.0 ampera at TL=95℃
- ●Exceeds environme ntal standards of MIL-S 19500/228
- ●For use in low voltage,high frequency inverters free wheeling, and polarlity protection applications

MECHANICAL DATA

- ●Case:DO-27 molded plastic body
- ●Terminals:Lead solderable per MIL-STD-750,method 2026
- ●Polarity:Color band denotes cathode end
- ●Mounting Position:Any

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

TYPE NUMBER		SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum recurrent peak reverse voltage		V_{RRM}	20	30	40	V
Maximum RMS voltage		V_{RMS}	14	21	28	V
Maximum DC blocking voltage		V_{DC}	20	30	40	V
Maximum Average Forward rectified Current		$I_{F(AV)}$	3.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	80.0			A
Maximum Instantaneous Forward Voltage at 3.0A		V_F	0.5			V
Maximum reverse current	@T_A=25	I_R	0.5			mA
at rated DC blocking voltage	@T_A=100		50.0			
Typical Junction Capacitance (Note1)		C_J	250			pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	20			
Storage Temperature		T_{STG}	- 55 ---- + 150			℃
Operation Junction Temperature		T_j	- 55 ---- + 125			℃

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.Thermal Resistance from Junction to Ambient0.5"(12.7mm) lead length.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

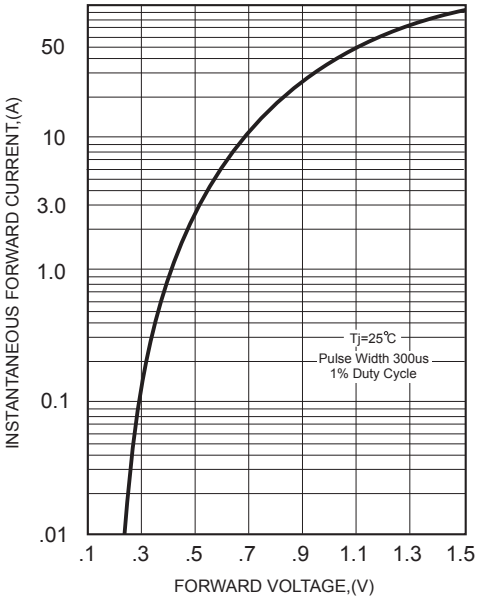


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

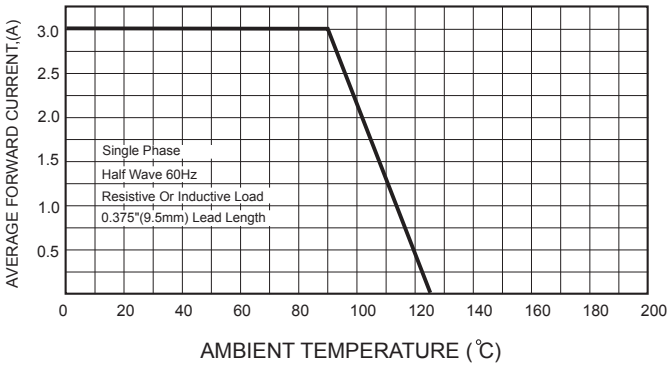


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

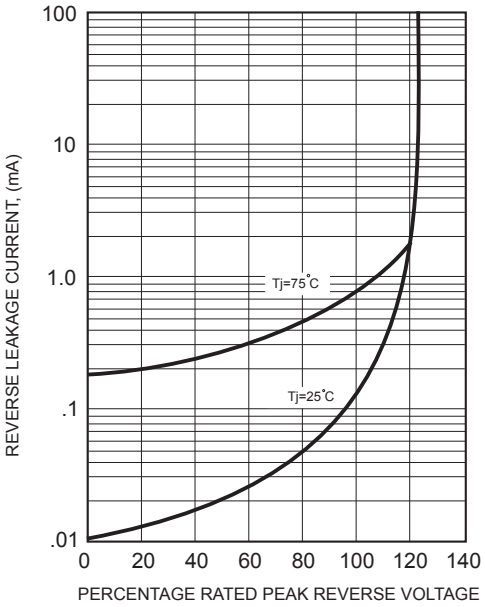


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

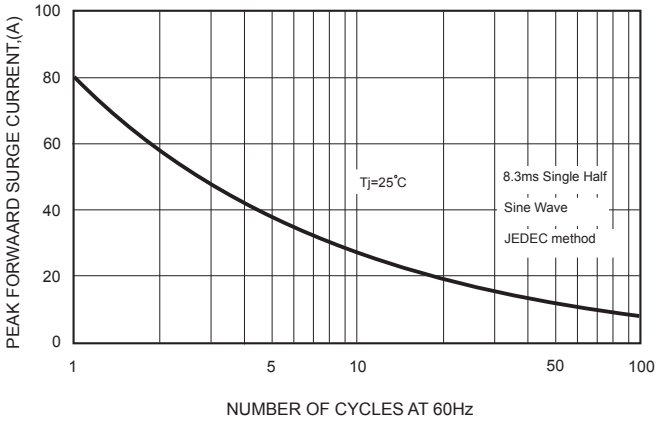


FIG.5-TYPICAL JUNCTION CAPACITANCE