

Features

- Low power loss ,high efficiency
- For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- Guarding for over voltage protection
- High temperature soldering guaranteed:
260°C/10 seconds at terminals

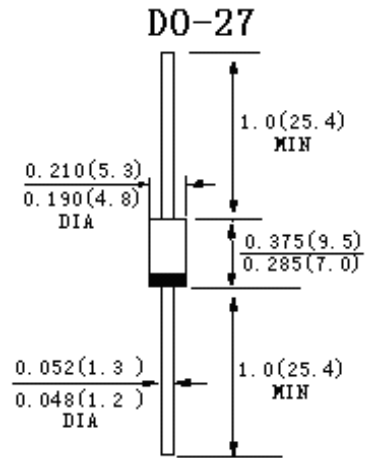
Mechanical Data

Case: DO-27 Molded plastic

Polarity: Color band denotes cathode end

Lead: Pure tin plated, lead free

Mounting Position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

TYPE NUMBER	Symbols	1N5820	1N5821	1N5822	Units
Maximum repetitive 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 9.5mm lead length (See fig. 1)	$I_{F(AV)}$	3.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80			A
Maximum instantaneous forward voltage at 3.0A	V_F	0.475	0.50	0.525	V
Maximum instantaneous reverse current at rated DC blocking voltage $T_a=25^\circ\text{C}$ $T_a=100^\circ\text{C}$	I_R	2.0 20			mA
Operating junction temperature range	T_J	-55to+125			°C
Storage temperature range	T_{stg}	-55to+150			°C

Characteristic Curves

Fig. 1 - Forward Current Derating Curve

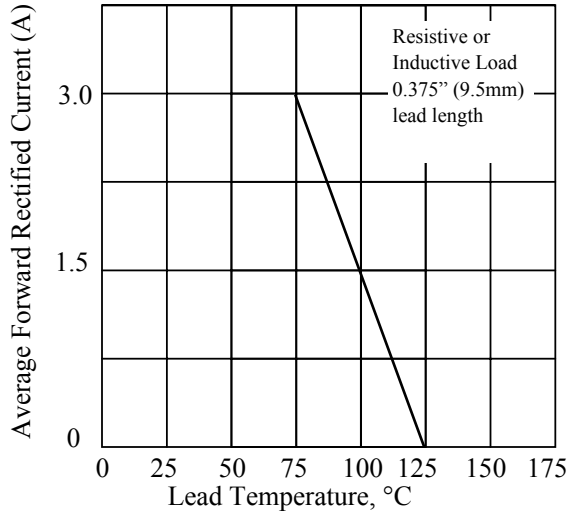


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

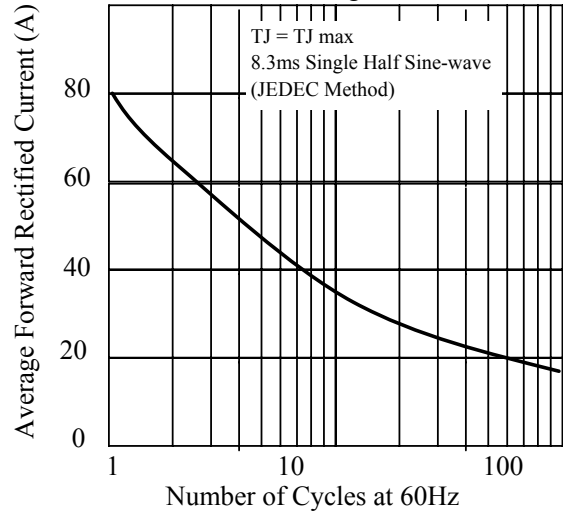


Fig. 3 - Typical Instantaneous Forward Characteristics

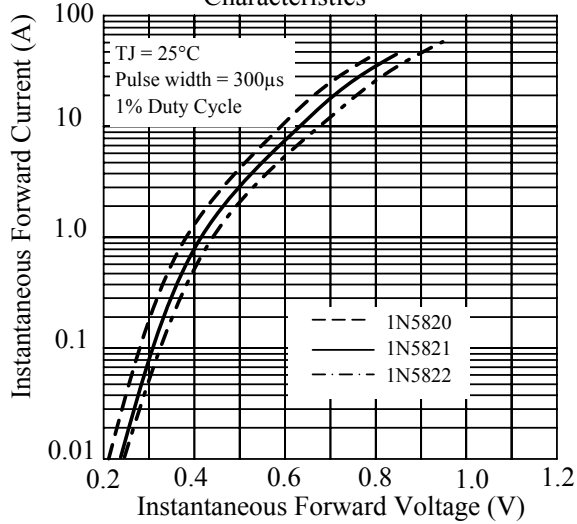


Fig. 4 - Typical Reverse Characteristics

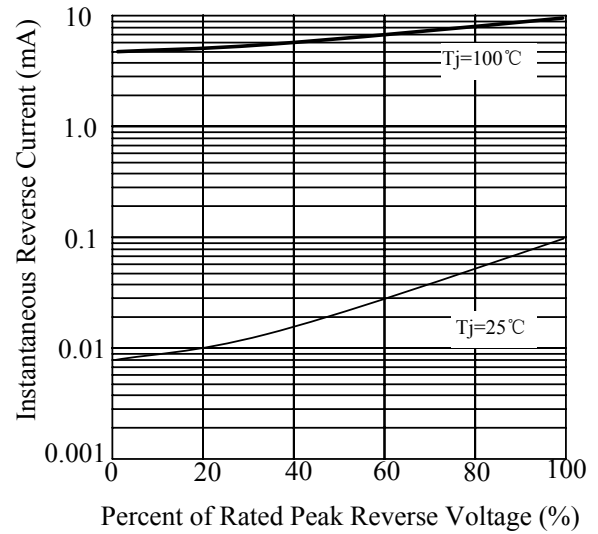


Fig. 5 - typical Junction Capacitance

