

**Surface Mount Schottky Barrier Rectifiers****Reverse Voltage - 20 to 40 Volts****Forward Current - 3.0 Amperes****Features**

- Low forward voltage drop
- High surge capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

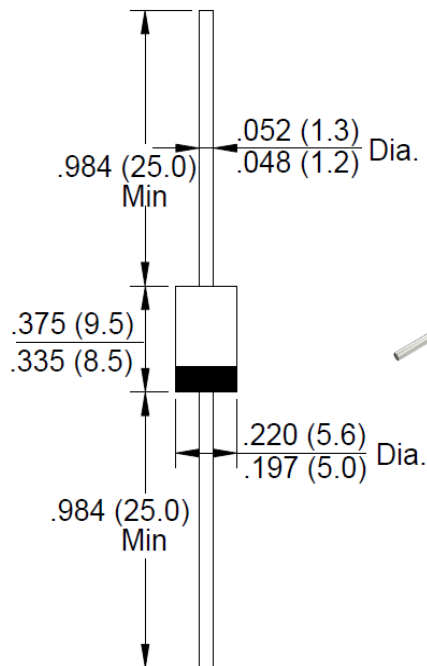
- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode

- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

- For use in low voltage, high frequency inverters, polarity protection applications

DO-27**RoHS**
COMPLIANT

Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	1N5820	1N5821	1N5822	Unit
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 @ T _L =95 °C	I(AV)	3.0			A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	80			A
Peak Forward Voltage at 3.0 A DC	V _F	0.45	0.55	0.60	V
Peak Forward Voltage at 9.4 A DC	V _F	0.850	0.900	0.950	V
Maximum DC Reverse Current @T _J =25°C	I _R	1.0			mA
at Rated DC Blocking Voltage @T _J =100°C		20			
Typical Junction Capacitance (Note1)	C _J	250			pF
Typical Thermal Resistance Junction to Lead	R _{θJL}	20			°C/W
Junction Temperature Range	T _J	-55 to +150			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. The typical data above is for reference only.

1N58*-A/B/T-00/99-00/01

Rev. 11, 18-May-2020



Fig. 1 - Forward Current Derating Curve

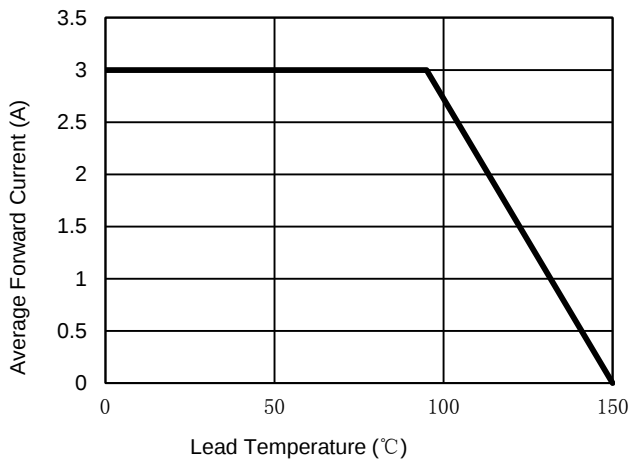


Fig. 2 - Maximum Non-Repetitive Surge Current

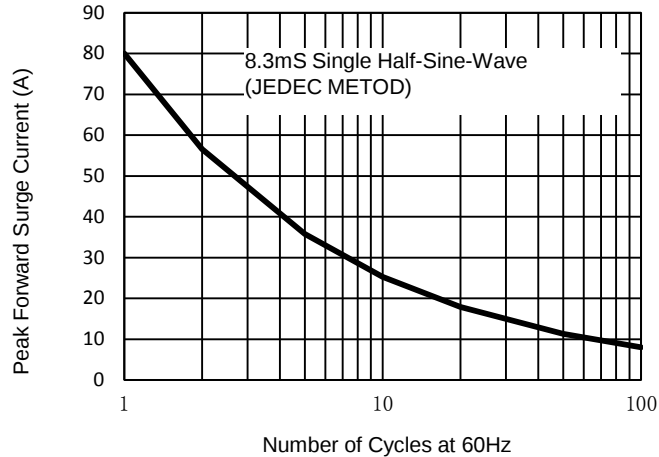


Fig. 3 - Typical Reverse Characteristics

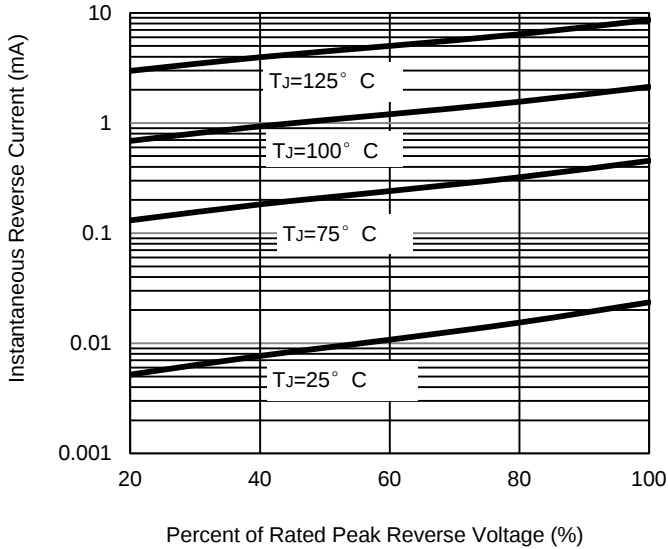


Fig. 4 - Typical Forward Characteristics

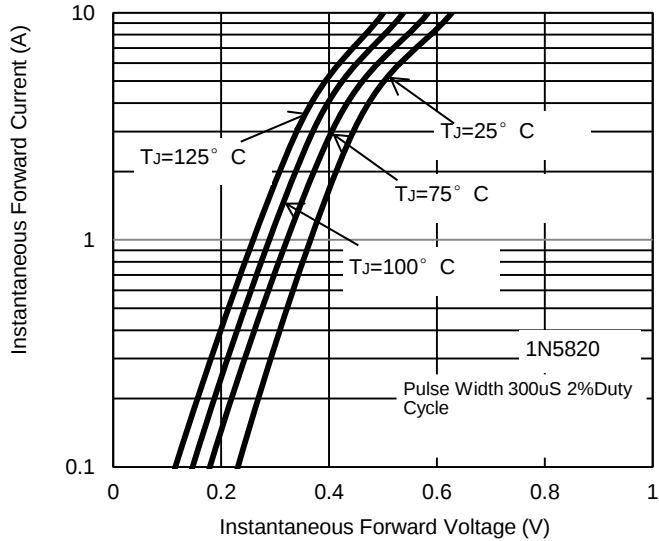


Fig. 5 - Typical Forward Characteristics

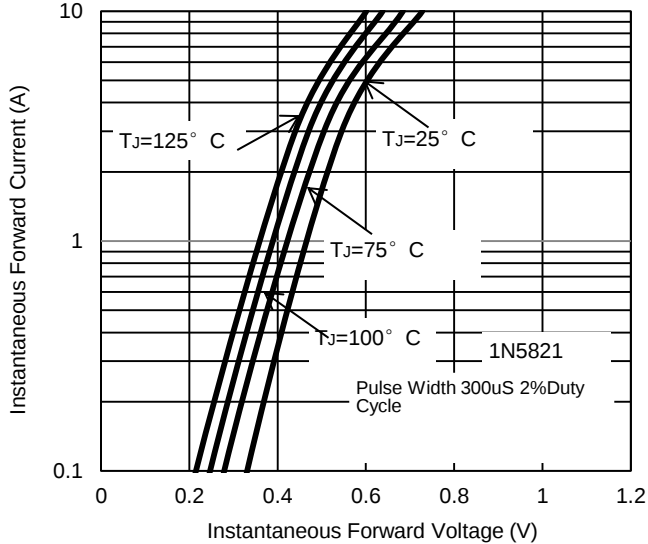
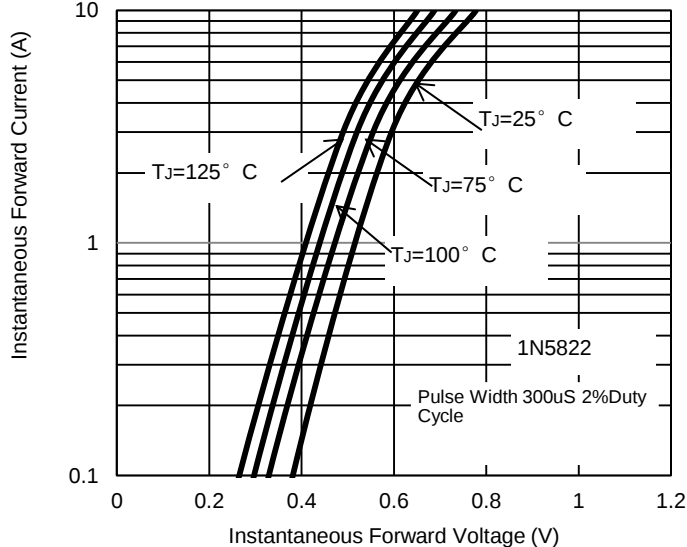


Fig. 6 - Typical Forward Characteristics





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