

1N5820 thru 1N5822

1.Feature & Dimensions

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss,high efficiency
- * For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- * Guarding for overvoltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

2.Mechanical Data

Case: JEDEC DO-201AD, molded plastic over glass body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04oz., 1.12 g

Handling precaution:None

3.Electrical Characteristic

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	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 0.375" (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
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50			°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-40 to +125			°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	1N5820	1N5821	1N5822	Unit
Maximum instantaneous forward voltage at 3.0A	V_F	0.475	0.500	0.53	V
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	I_R	2.0 20			mA
Typical junction capacitance at 4.0V, 1MHz	C_J	110			PF

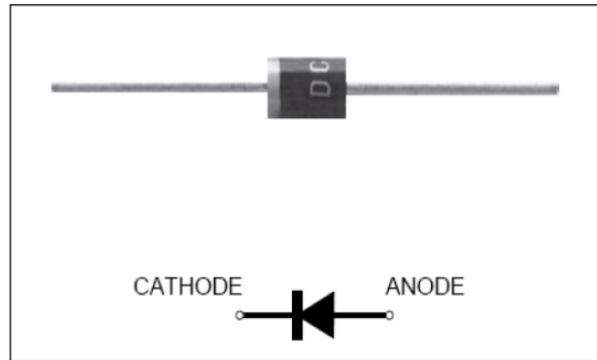
NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Schottky Barrier Rectifiers

Reverse Voltage 20 to 40V

Forward Current 3.0A



We declare that the material of product compliance with RoHS requirements.

4. Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

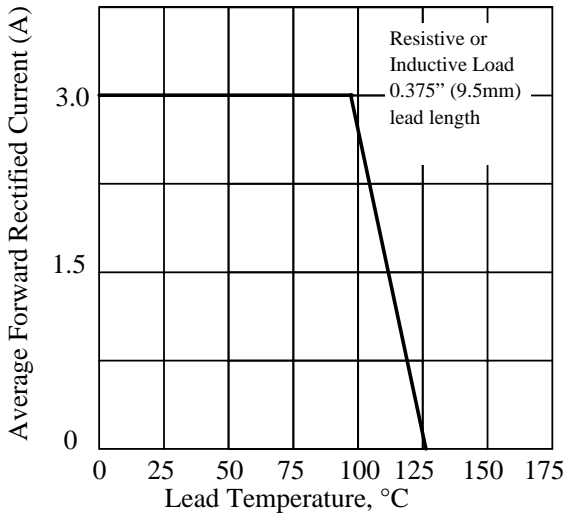


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

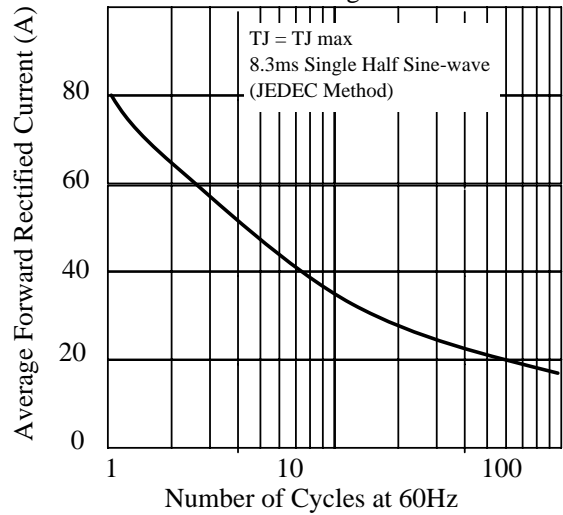


Fig 3. - Typical Instantaneous Forward Characteristics

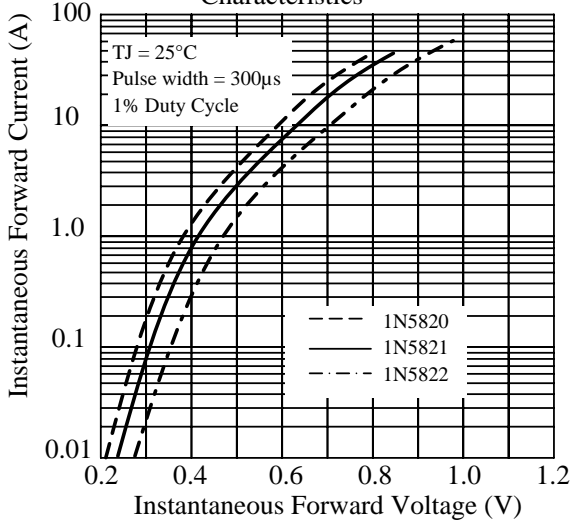


Fig 4. - Typical Reverse Characteristics

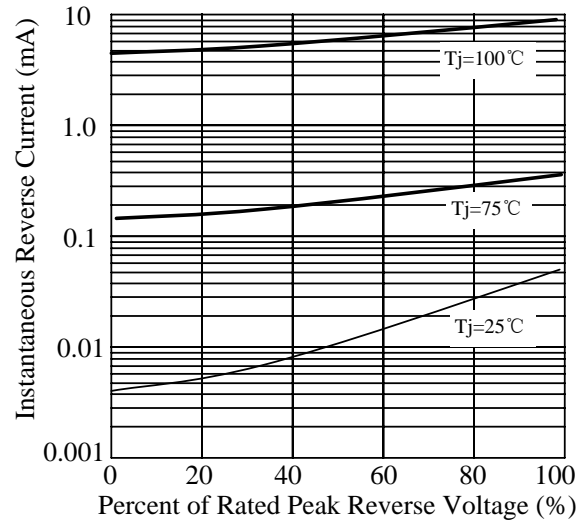


Fig 5. - typical transient thermal impedance

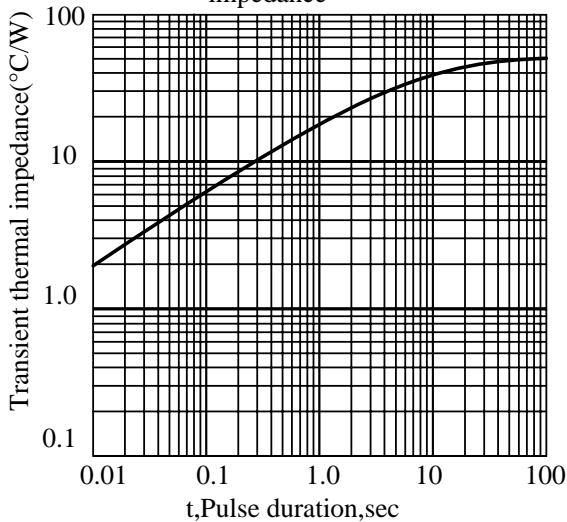
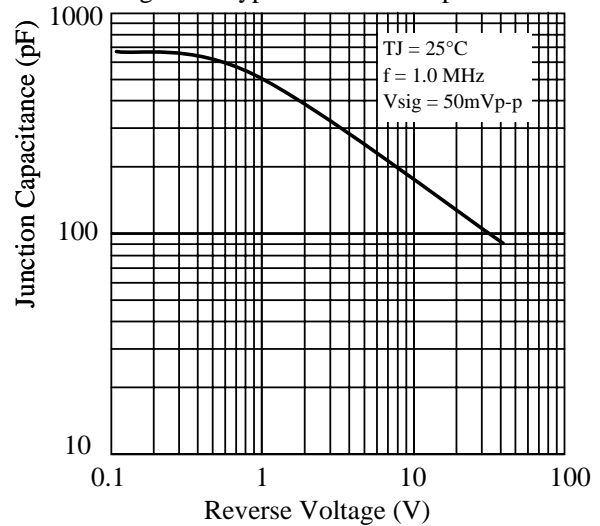


Fig 6. - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)
