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## 1N5820, 1N5821, 1N5822 Silicon Rectifier Diodes Schottky Barrier, Fast Switching

**Features:**

- 3.0 Ampere Operation at  $T_A = +95^\circ\text{C}$

**Application:**

- For Use in Low Voltage, High Frequency Inverters Free Wheeling, and Polarity Protection Applications

**Maximum Ratings and Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Maximum Repetitive Reverse Voltage,  $V_{RRM}$

1N5820 .....	20V
1N5821 .....	30V
1N5822 .....	40V

Maximum Average Forward Rectified Current,  $I_{F(AV)}$

(.375" (9.5mm) lead length at  $T_L = +95^\circ\text{C}$ ), . . . . . 3.0A

Non-Repetitive Peak Forward Surge Current (8.3ms single half sine-wave),  $I_{FSM}$  . . . . . 80A

Maximum Instantaneous Forward Voltage,  $V_F$

$I_F = 3.0A$

1N5820 .....	.475mV
1N5821 .....	.500mV
1N5822 .....	.525mV

$I_F = 9.4A$

1N5820 .....	.850mV
1N5821 .....	.900mV
1N5822 .....	.950mV

Maximum Average Reverse Current,  $I_R$

$T_A = +25^\circ\text{C}$  . . . . . 0.5mA

$T_A = +100^\circ\text{C}$  . . . . . 20mA

Power Dissipation,  $P_D$  . . . . . 3.6W

Typical Junction Capacitance ( $V_R = 4V, f = 1\text{MHz}$ ) . . . . . 190pF

Operating Junction Temperature Range  $T_J$  . . . . .  $-65^\circ$  to  $+125^\circ\text{C}$

Storage Temperature Range  $T_{STG}$  . . . . .  $-65^\circ$  to  $+125^\circ\text{C}$

Typical Thermal Resistance, Junction-to-Ambient,  $R_{thJA}$  . . . . .  $28^\circ\text{C/W}$

