ELECTRONICS, INC.
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1N5820, 1N5821, 1N5822
Silicon Rectifier Diodes
Schottky Barrier, Fast Switching

Features:

- 3.0 Ampere Operation at T_A = +95°C

Application:

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

Maximum Ratings and Electrical Characteristics: (T_A = +25°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°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°C 0.5mA
- T_A = +100°C 20mA

Power Dissipation, P_D 3.6W

Typical Junction Capacitance (V_R = 4V, f = 1MHz) 190pF

Operating Junction Temperature Range T_J . . . . . –65° to +125°C

Storage Temperature Range T_{STG} . . . . . –65° to +125°C

Typical Thermal Resistance, Junction–to–Ambient, R_{thJA} . . . . . 28°C/W