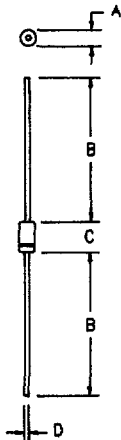


# 3 Amp Schottky Rectifier

## 1N5820, 1N5821, 1N5822



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.188	.260	4.78	6.50	Dia.
B	1.00	---	25.4	---	
C	.285	.375	7.24	9.52	
D	.046	.056	1.17	1.42	Dia.

PLASTIC D0201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N5820	20V	20V
1N5821	30V	30V
1N5822	40V	40V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- High Reliability
- High Current Capability

Electrical Characteristics					
		1N5820	1N5821	1N5822	
Average forward current	I <sub>F(AV)</sub>	3A	3A	3A	
Ambient Temperature		115°C	116°C	117°C	R <sub>θJL</sub> = 28°C/W, L = 0"
Ambient Temperature		85°C	86°C	88°C	R <sub>θJL</sub> = 52°C/W, L = 3/8"
Maximum surge current	I <sub>FSM</sub>	150A	150A	150A	8.3ms, half sine, T <sub>J</sub> = 150°C
Max peak forward voltage	V <sub>FM</sub>	.36V	.37V	.38V	I <sub>FM</sub> = 1A, T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub>	.46V	.48V	.50V	I <sub>FM</sub> = 3A, T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub>	.65V	.67V	.70V	I <sub>FM</sub> = 9.4A, T <sub>J</sub> = 25°C*
Max peak reverse current	I <sub>RM</sub>	1.5mA	1.5mA	1.5mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub>	265pF	265pF	265pF	V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C

\*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temperature range	T <sub>STG</sub>	-40°C to 150°C
Operating junction temp range	T <sub>J</sub>	-40°C to 150°C
Maximum thermal resistance	L = 3/8" R <sub>θJL</sub>	52°C/W Junction to Lead
	L = 0 R <sub>θJL</sub>	28°C/W Junction to Lead
Weight		.032 ounces (1.0 grams) typical

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**Microsemi Corp.**  
**Colorado**

# 1N5820, 1N5821, 1N5822

Figure 1  
Typical Forward Characteristics

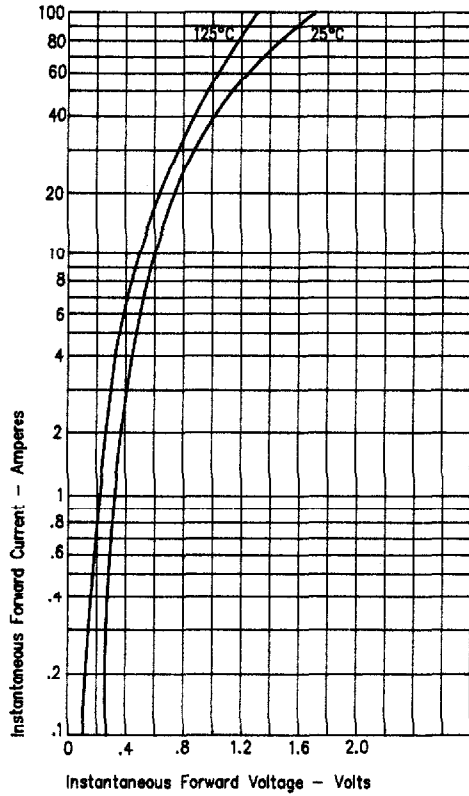


Figure 3  
Typical Junction Capacitance

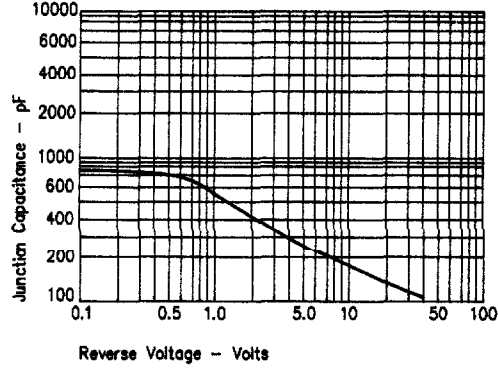


Figure 2  
Typical Reverse Characteristics

