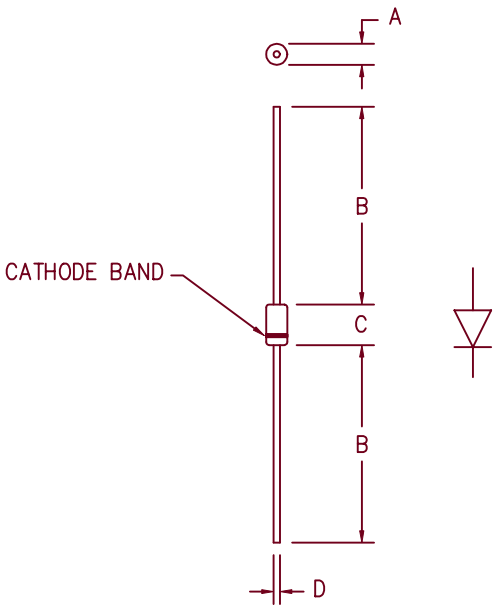
3 Amp Schottky Rectifier

1N5820,1N5821,1N5822



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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
- Reverse energy tested

Electrical Characteristics

		1N5820	1N5821	1N5822	
Average forward current	$I_{F(AV)}$	3A	3A	3A	
Case temperature	T_C	115°C	116°C	117°C	$R_{\theta JL}$ = 28°C/W, L = 0"
Lead temperature	T_L	85°C	86°C	88°C	$R_{\theta JL}$ = 52°C/W, L = 3/8"
Maximum surge current	I_{FSM}	150A	150A	150A	8.3ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM}	.36V	.37V	.38V	I_{FM} = 1A, T_J = 25°C*
Max peak forward voltage	V_{FM}	.46V	.48V	.50V	I_{FM} = 3A, T_J = 25°C*
Max peak forward voltage	V_{FM}	.65V	.67V	.70V	I_{FM} = 9.4A, T_J = 25°C*
Max peak reverse current	I_{RM}	1.5mA	1.5mA	1.5mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	265pF	265pF	265pF	V_R = 5.0V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temperature range		T_{STG}	−55°C to 150°C
Operating junction temp range		T_J	−55°C to 150°C
Maximum thermal resistance	L = 3/8"	$R_{\theta JL}$	52°C/W Junction to lead
	L = 0	$R_{\theta JC}$	28°C/W Junction to case
Weight			.032 ounces (1.0 grams) typical

3-13-00 Rev. 3

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Figure 1
Typical Forward Characteristics

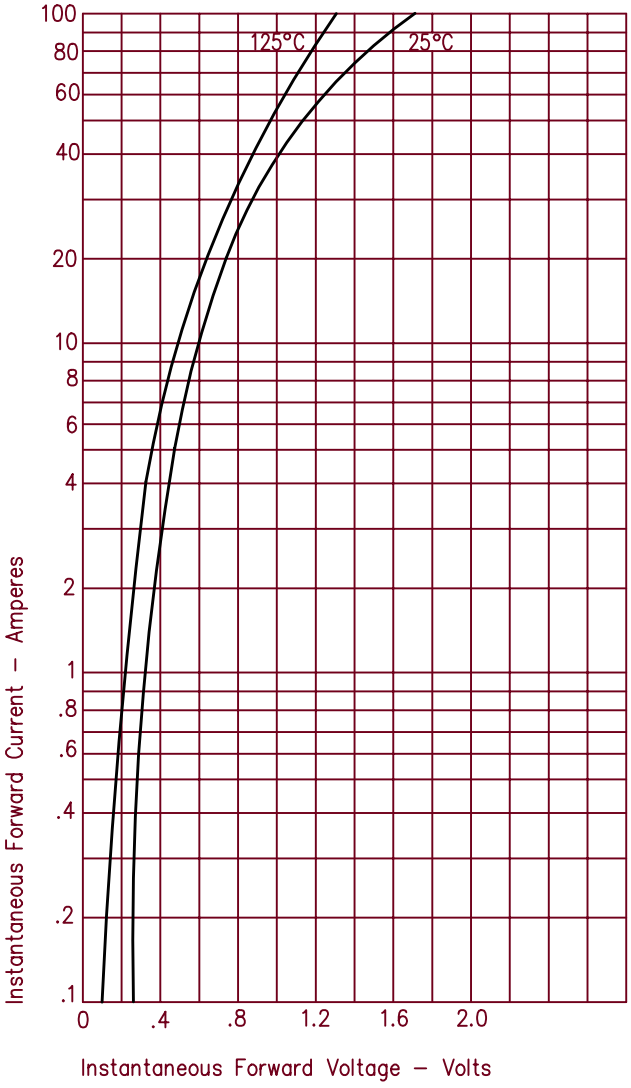

Figure 2
Typical Reverse Characteristics

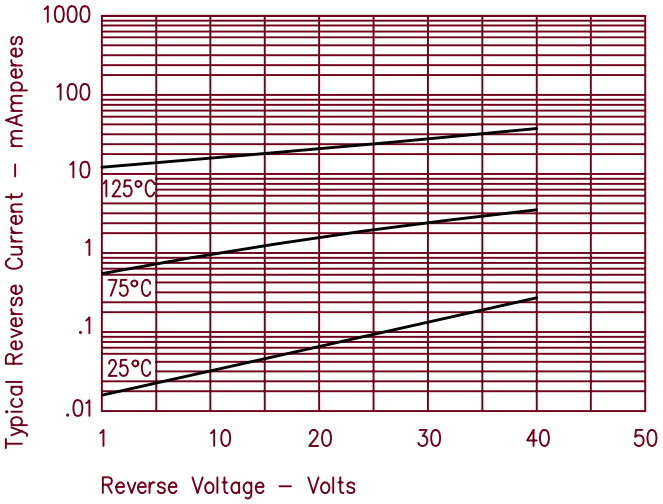

Figure 3
Typical Junction Capacitance