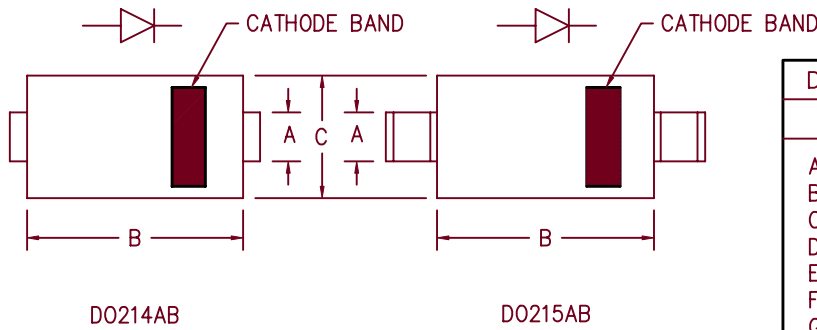
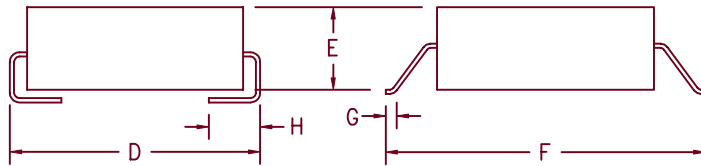


# 3 Amp Schottky Rectifier

## 5820SM — 5822SM



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.117	.123	2.97	3.12	
B	.260	.280	6.60	7.11	
C	.220	.245	5.59	6.22	
D	.307	.322	7.80	8.18	
E	.075	.095	1.91	2.41	
F	.380	.400	9.65	10.16	
G	.025	.040	.640	1.02	
H	.030	.060	.760	1.52	



Microsemi Catalog Number	Industry Part No.	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
5820SM*	MBRS320T3 SK32	20V	20V
5821SM*	MBRS330T3 SK33	30V	30V
5822SM*	MBRS340T3 SK34	40V	40V

\*Add Suffix J For J Lead or G For Gull Wing Lead Configuration

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

Electrical Characteristics					
		5820SM	5821SM	5822SM	
Average forward current	I <sub>F(AV)</sub>	3A	3A	3A	Square wave, T <sub>L</sub> = 127°C, R <sub>θJL</sub> = 20°C/W 8.3ms, half sine, T <sub>J</sub> = 150°C I <sub>FM</sub> = 1A, T <sub>J</sub> = 25°C* I <sub>FM</sub> = 3A, T <sub>J</sub> = 25°C* I <sub>FM</sub> = 9.4A, T <sub>J</sub> = 25°C* V <sub>RRM</sub> , T <sub>J</sub> = 25°C V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C
Maximum surge current	I <sub>FSM</sub>	150A	150A	150A	
Max peak forward voltage	V <sub>FM</sub>	.36V	.37V	.38V	
Max peak forward voltage	V <sub>FM</sub>	.46V	.48V	.50V	
Max peak forward voltage	V <sub>FM</sub>	.65V	.67V	.70V	
Max peak reverse current	I <sub>RM</sub>	1.5mA	1.5mA	1.5mA	
Typical junction capacitance	C <sub>J</sub>	265pF	265pF	265pF	

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

Thermal and Mechanical Characteristics		
Storage temperature range	T <sub>STG</sub>	-55°C to 150°C
Operating junction temp range	T <sub>J</sub>	-55°C to 150°C
Maximum thermal resistance	R <sub>θJL</sub>	20°C/W Junction to Lead
Weight		.008 ounces (.22 grams) typical

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# 5820SM – 5822SM

Figure 1  
Typical Forward Characteristics

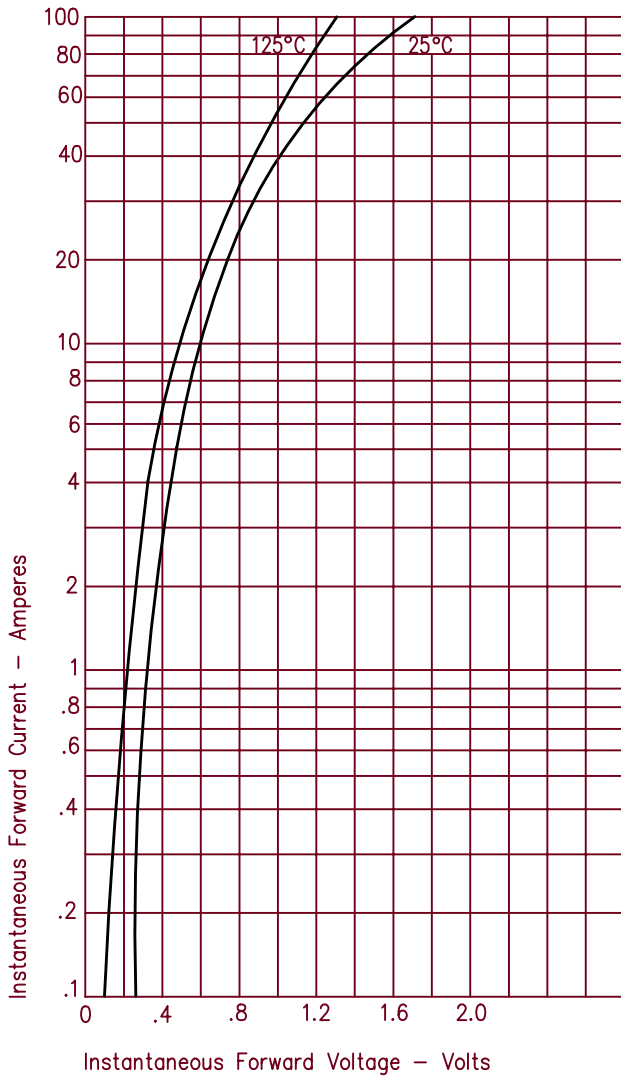


Figure 3  
Typical Junction Capacitance

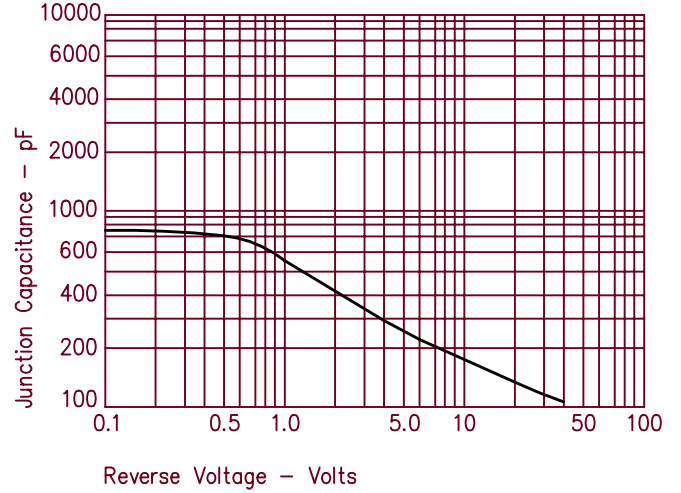
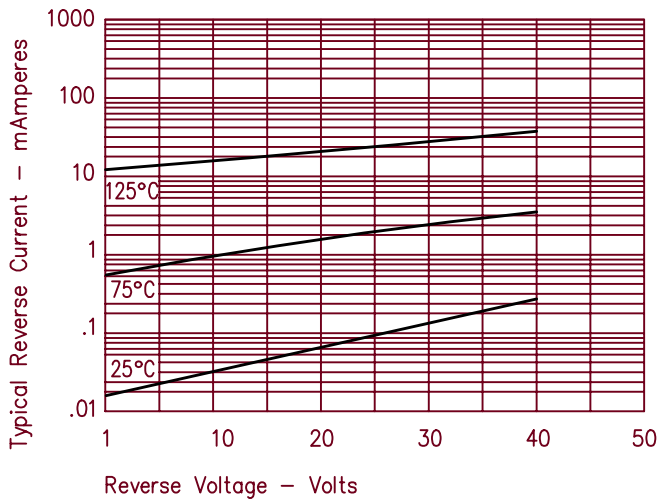


Figure 2  
Typical Reverse Characteristics





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