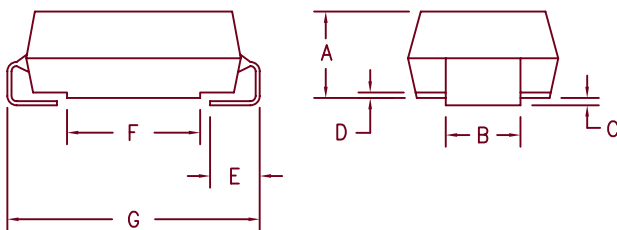
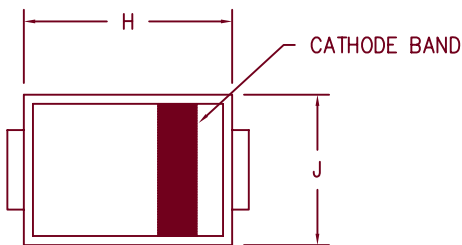


# 1 Amp Schottky Rectifiers 5817SMJ — 5819SMJ



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.078	.116	1.98	2.95	
B	.075	.089	1.90	2.25	
C	.002	.008	0.05	0.20	
D	---	.020	---	0.51	
E	.035	.055	0.89	1.40	
F	.065	.091	1.65	2.32	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

SMB

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
5817SMJ	SK12 MBRS120T3	20V	20V
5818SMJ	SK13 MBRS130T3 MBRS130TR	30V	30V
5819SMJ	SK14 MBRS140T3	40V	40V

- Underwriters Laboratory Flammability Class 94V-0
- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- Low thermal resistance rating

## Electrical Characteristics

		5817SMJ	5818SMJ	5819SMJ	
Average forward current	I <sub>F(AV)</sub>	1A	1A	1A	Square wave
Lead temperature	T <sub>L</sub>	117°C	118°C	118°C	R <sub>θJC</sub> = 15°C/W
Maximum surge current	I <sub>FSM</sub>	50A	50A	50A	8.3ms, half sine, T <sub>J</sub> = 150°C
Max peak forward voltage	V <sub>FM</sub>	.32V	.37V	.37V	I <sub>FM</sub> = 0.1A: T <sub>J</sub> = 25°C *
Max peak forward voltage	V <sub>FM</sub>	.45V	.55V	.55V	I <sub>FM</sub> = 1.0A: T <sub>J</sub> = 25°C *
Max peak forward voltage	V <sub>FM</sub>	.65V	.85V	.85V	I <sub>FM</sub> = 3.0A: T <sub>J</sub> = 25°C *
Max peak reverse current	I <sub>RM</sub>	1mA	1mA	1mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub>	105pF	50pF	50pF	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>	-55°C to 150°C
Operating junction temp range	T <sub>J</sub>	-55°C to 150°C
Maximum thermal resistance	R <sub>θJC</sub>	15°C/W Junction to lead
Weight		.0047 ounces (.013 grams) typical



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05-09-07 Rev. 6

# 5817SMJ

Figure 1  
Typical Forward Characteristics

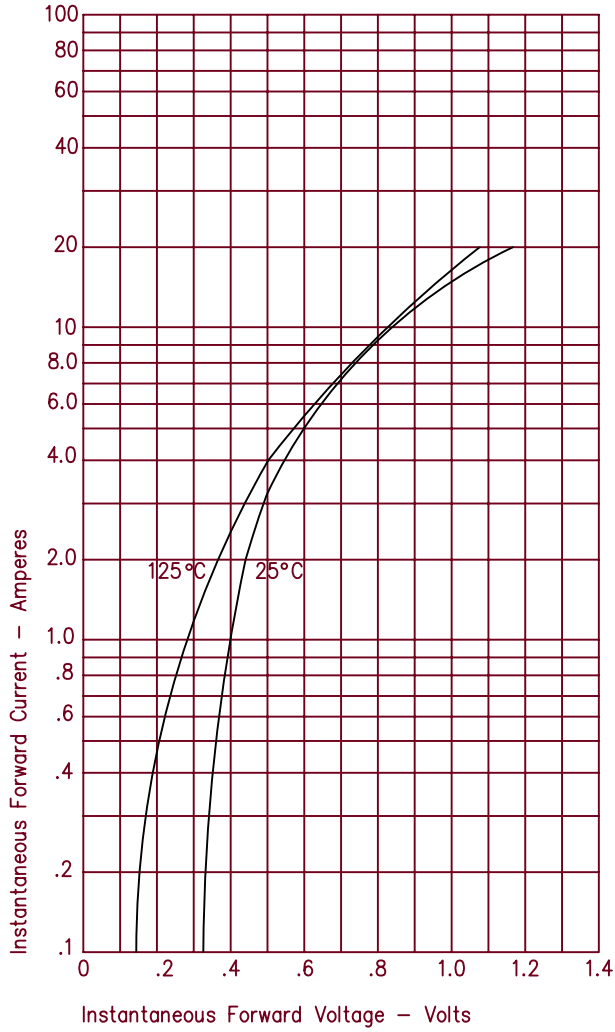


Figure 3  
Typical Junction Capacitance

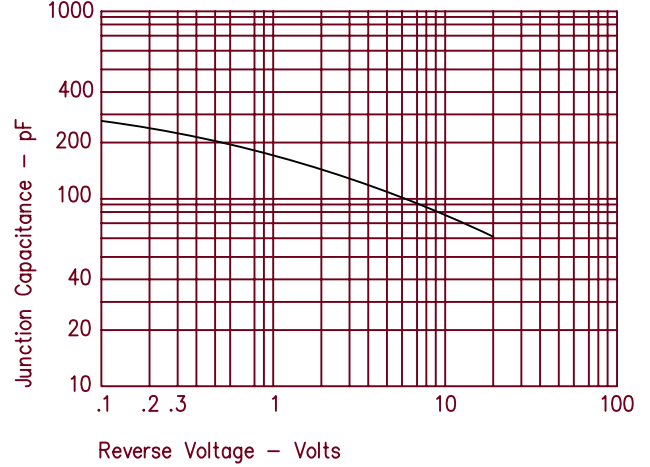
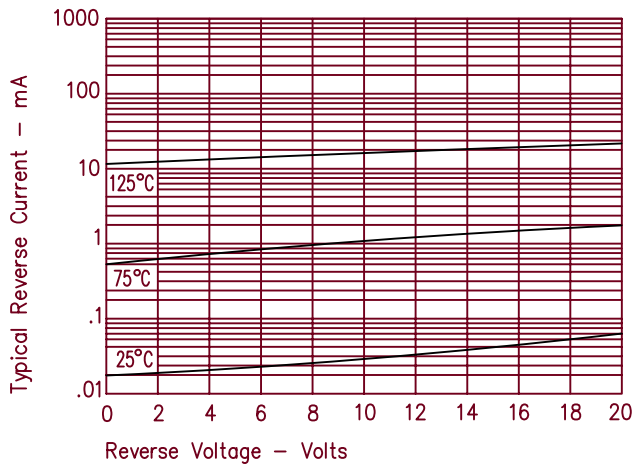


Figure 2  
Typical Reverse Characteristics



# 5818SMJ & 5819SMJ

Figure 1  
Typical Forward Characteristics

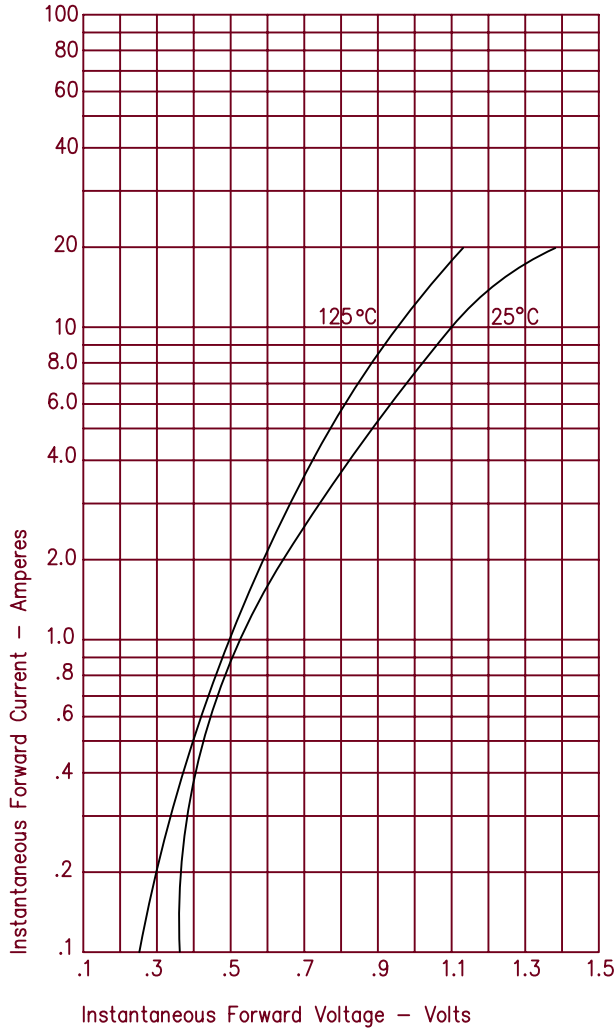


Figure 3  
Typical Junction Capacitance

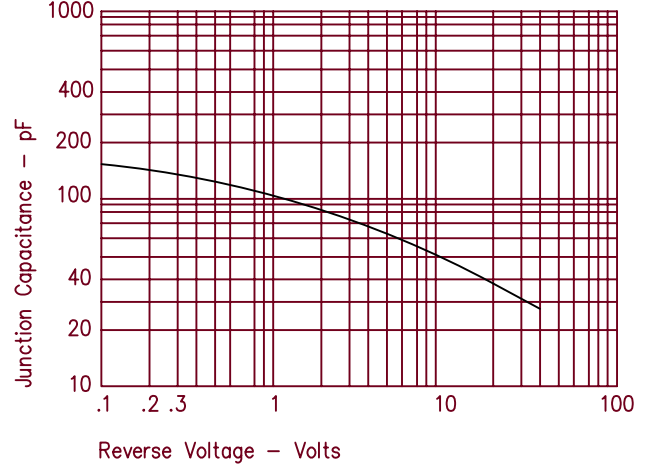


Figure 2  
Typical Reverse Characteristics

