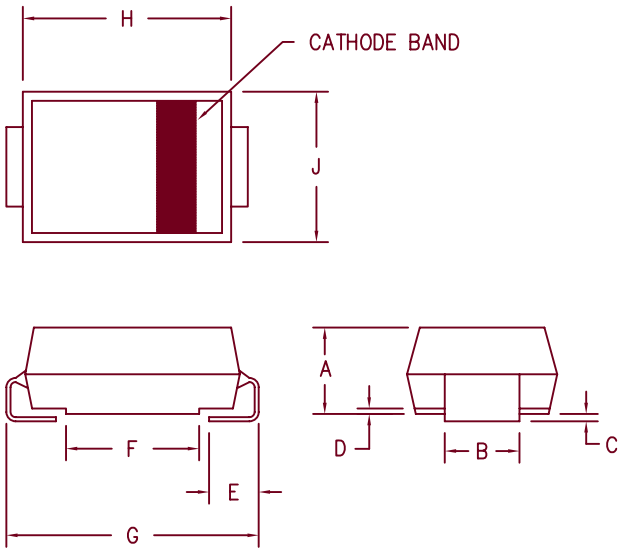
1 Amp Schottky Rectifiers
5817SMJ – 5819SMJ



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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	$I_{F(AV)}$	1A	1A	1A	Square wave
Lead temperature	T_L	117°C	118°C	118°C	$R_{\theta JC}$ = 15°C/W
Maximum surge current	I_{FSM}	50A	50A	50A	8.3ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM}	.32V	.37V	.37V	I_{FM} = 0.1A; T_J = 25°C *
Max peak forward voltage	V_{FM}	.45V	.55V	.55V	I_{FM} = 1.0A; T_J = 25°C *
Max peak forward voltage	V_{FM}	.65V	.85V	.85V	I_{FM} = 3.0A; T_J = 25°C *
Max peak reverse current	I_{RM}	1mA	1mA	1mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	105pF	50pF	50pF	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	$R_{\theta JC}$	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

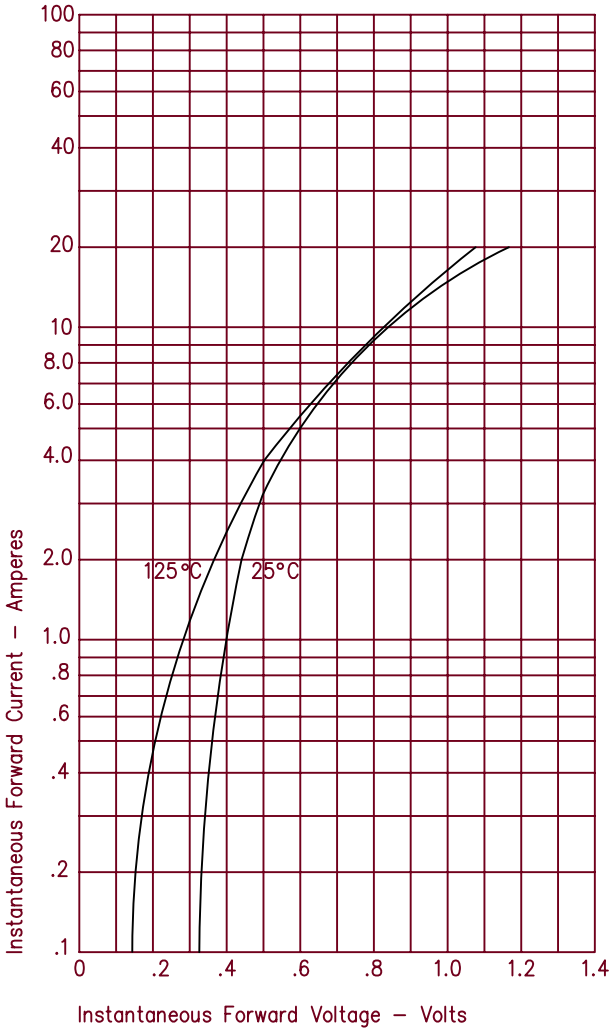


Figure 2
Typical Reverse Characteristics

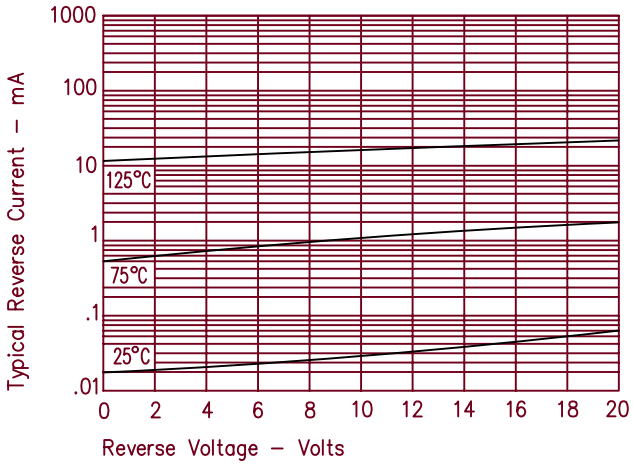
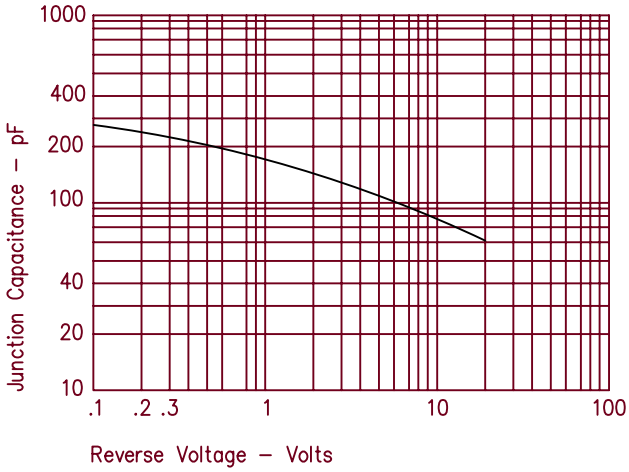


Figure 3
Typical Junction Capacitance



5818SMJ & 5819SMJ

Figure 1
Typical Forward Characteristics

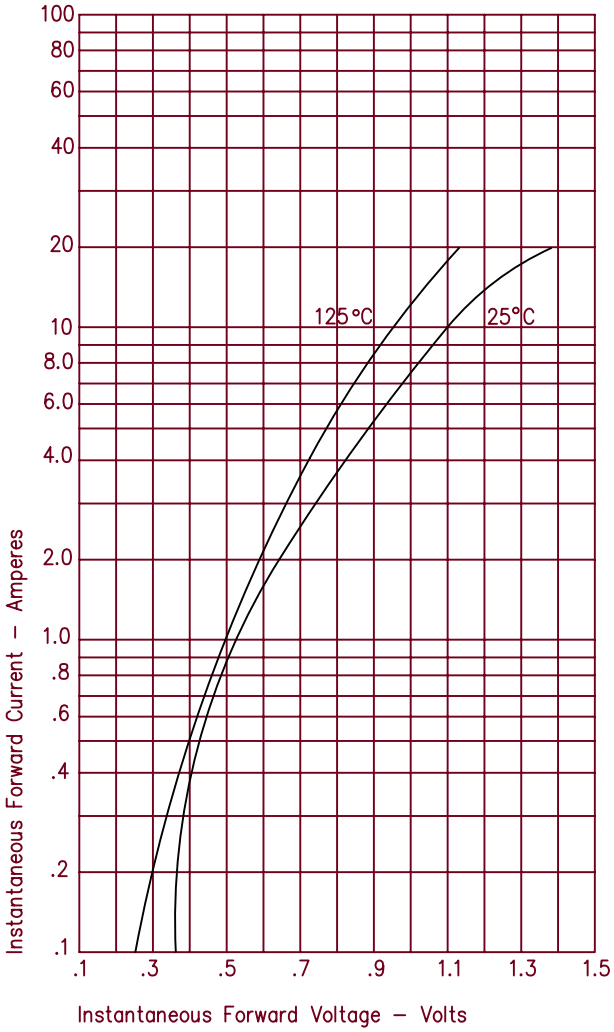


Figure 2
Typical Reverse Characteristics

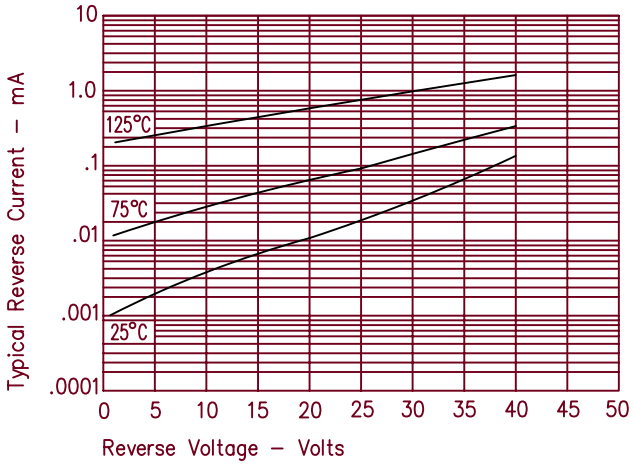


Figure 3
Typical Junction Capacitance