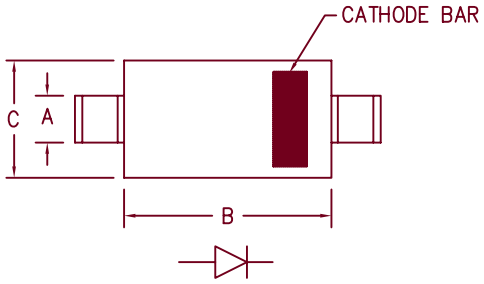
1 Amp Schottky Rectifier
5817SMG – 5819SMG



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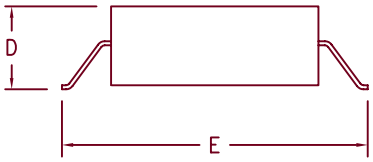

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.081	.087	2.06	2.21	
B	.160	.180	4.06	4.57	
C	.130	.155	3.30	3.94	
D	.077	.104	1.95	2.64	
E	.234	.256	5.95	6.50	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
5817SMG	20V	20V
5818SMG	30V	30V
5819SMG	40V	40V

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

Electrical Characteristics

		5817SMG	5818SMG	5819SMG	
Average forward current	$I_{F(AV)}$	1A	1A	1A	Square wave
Lead Temperature		136°C	133°C	133°C	$R_{\theta JL}$ = 30°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	$R_{\theta JL}$	25°C/W Junction to Lead
Weight		.0047 ounces (.013 grams) typical

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05-09-07 Rev. 3

5817SMG

Figure 1
Typical Forward Characteristics

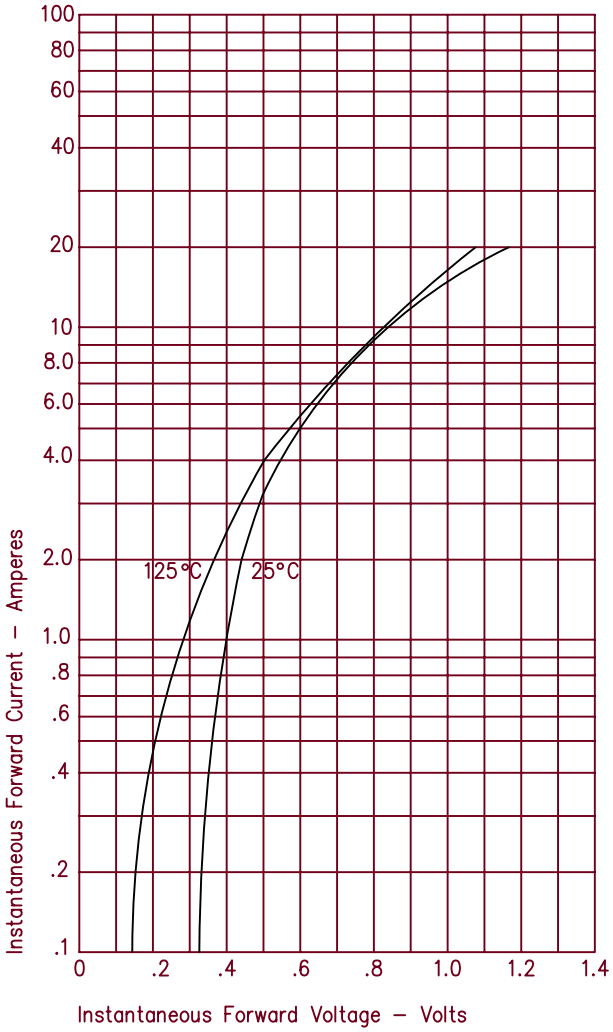


Figure 2
Typical Reverse Characteristics

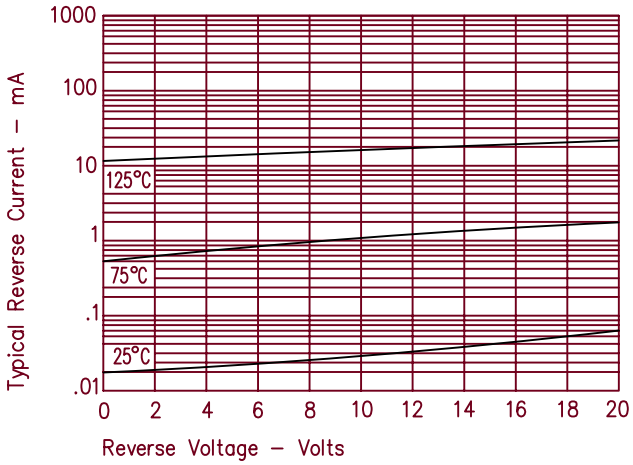
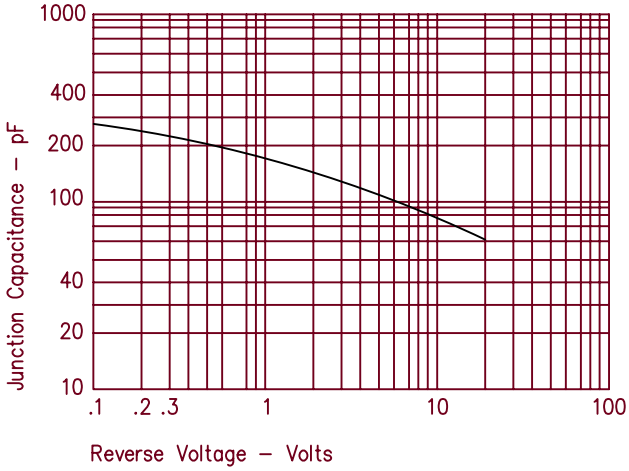


Figure 3
Typical Junction Capacitance



5818SMG & 5819SMG

Figure 1
Typical Forward Characteristics

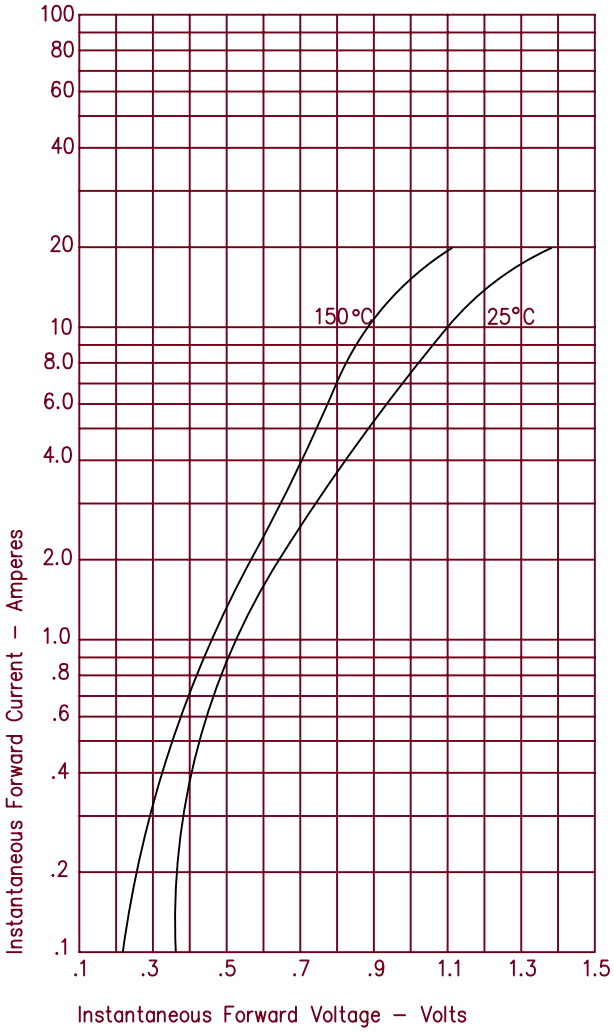


Figure 2
Typical Reverse Characteristics

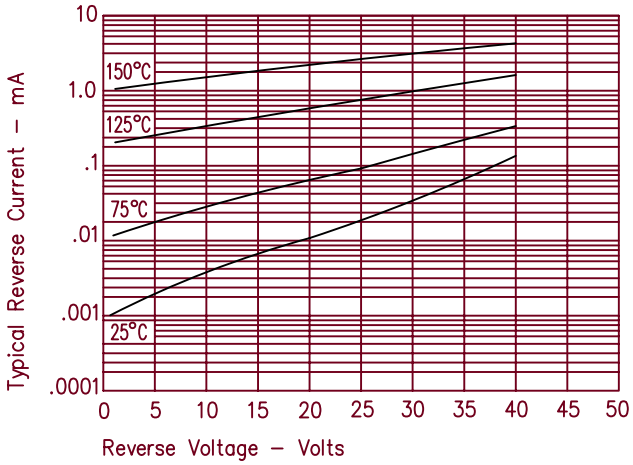


Figure 3
Typical Junction Capacitance