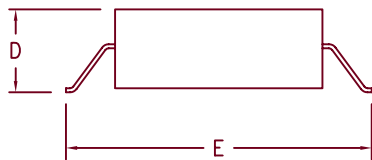
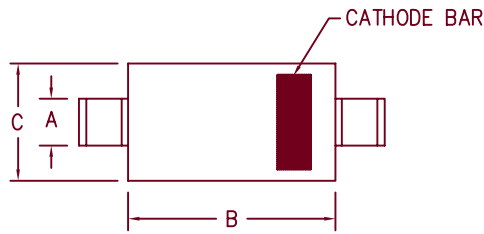


# 1 Amp Schottky Rectifier 5817SMG – 5819SMG



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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					
		<u>5817SMG</u>	<u>5818SMG</u>	<u>5819SMG</u>	
Average forward current	$I_F(AV)$	1A	1A	1A	Square wave $R_{\theta JL} = 30^\circ C/W$ 8.3ms, half sine, $T_J = 150^\circ C$ $I_{FM} = 0.1A, T_J = 25^\circ C^*$ $I_{FM} = 1.0A, T_J = 25^\circ C^*$ $I_{FM} = 3.0A, T_J = 25^\circ C^*$ $V_{RRM}, T_J = 25^\circ C$ $V_R = 5.0V, T_J = 25^\circ C$
Lead Temperature		136°C	133°C	133°C	
Maximum surge current	$I_{FSM}$	50A	50A	50A	
Max peak forward voltage	$V_{FM}$	.32V	.37V	.37V	
Max peak forward voltage	$V_{FM}$	.45V	.55V	.55V	
Max peak forward voltage	$V_{FM}$	.65V	.85V	.85V	
Max peak reverse voltage	$V_{RM}$	1mA	1mA	1mA	
Max peak reverse current	$I_{RM}$	1mA	1mA	1mA	
Typical junction capacitance	$C_J$	105pF	50pF	50pF	

\*Pulse test: Pulse width 300  $\mu$ sec, 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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 Scottsdale, AZ 85252  
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 FAX: (480) 947-1503  
[www.microsemi.com](http://www.microsemi.com)

05-09-07 Rev. 3

# 5817SMG

Figure 1  
Typical Forward Characteristics

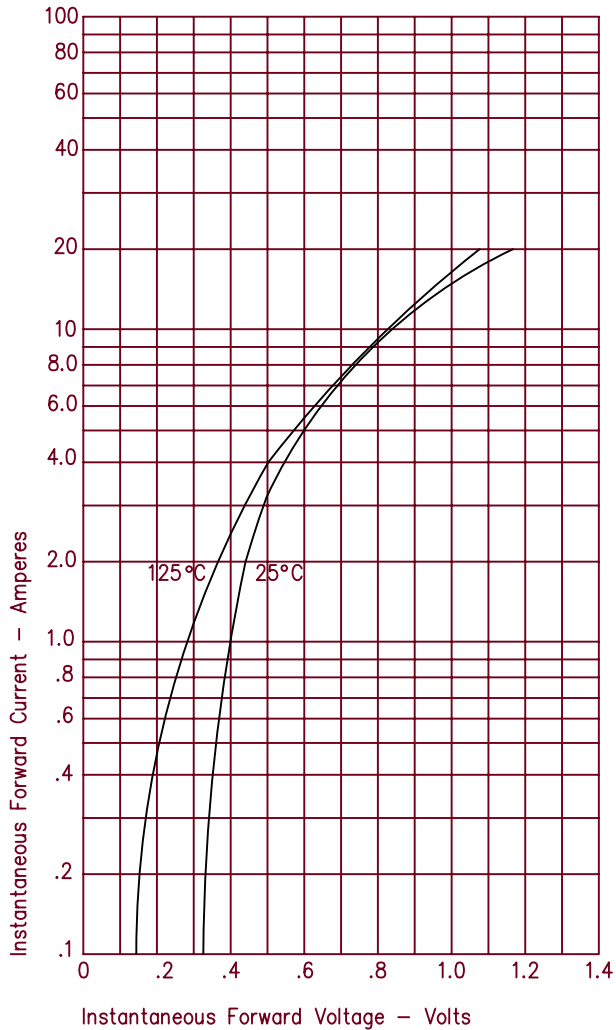


Figure 3  
Typical Junction Capacitance

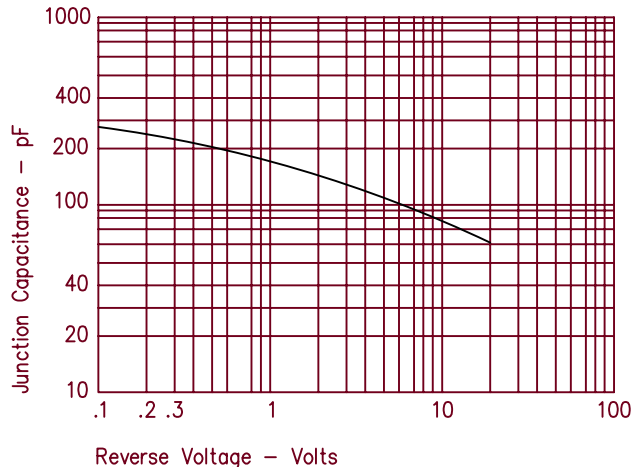
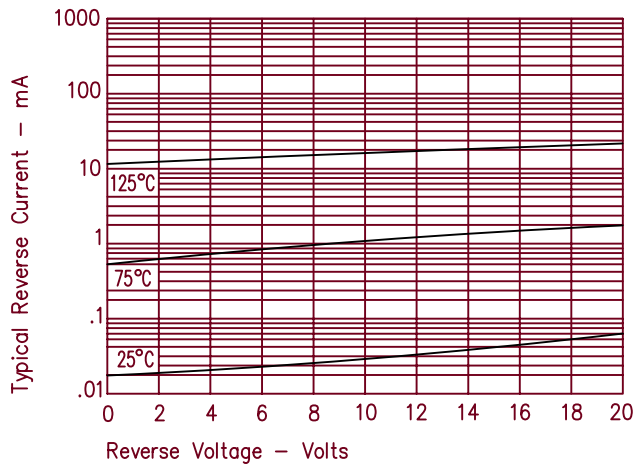


Figure 2  
Typical Reverse Characteristics



# 5818SMG & 5819SMG

Figure 1  
Typical Forward Characteristics

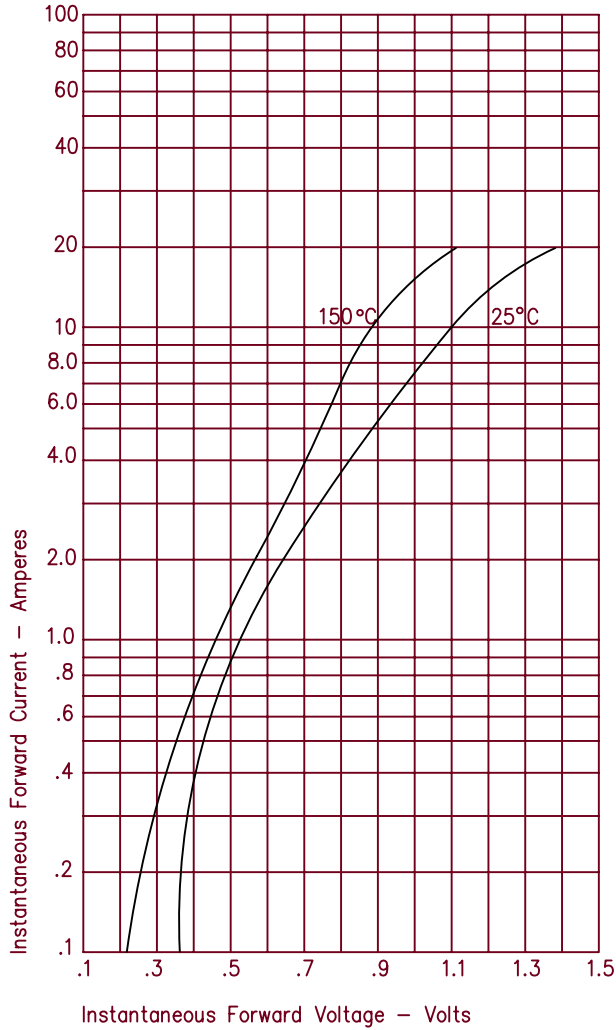


Figure 3  
Typical Junction Capacitance

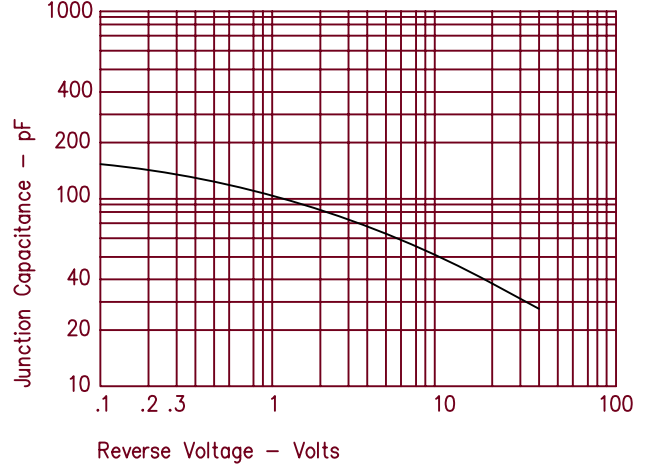


Figure 2  
Typical Reverse Characteristics

