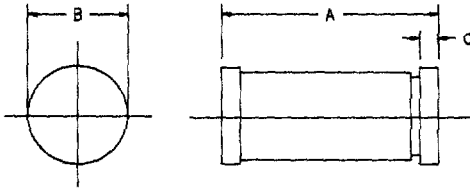


# 1 Amp Schottky Rectifier HSM180, HSM190

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Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.189	.205	4.80	5.20	Dia.
B	.094	.105	2.39	2.66	
C	.016	.022	.41	.55	

GLASS HERMETIC D0213AB

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage	
HSM180	80V	80V	<ul style="list-style-type: none"> <li>• Schottky Barrier Rectifier</li> <li>• Guard Ring Protection</li> <li>• 175°C Junction Temperature</li> <li>• VRRM 80 to 90 Volts</li> <li>• Economical Surface Mount Package</li> </ul>
HSM190	90V	90V	

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 138^\circ\text{C}$ , Square wave, $R_{\theta JC} = 45^\circ\text{C/W}$
Maximum surge current	$I_{FSM}$ 75 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Max peak forward voltage	$V_{FM}$ .53 Volts	$I_{FM} = 0.1\text{A}; T_J = 25^\circ\text{C}^*$
Max peak forward voltage	$V_{FM}$ .81 Volts	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current	$I_{RM}$ 100 $\mu\text{A}$	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 45pF	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$
*Pulse test: Pulse width 300 $\mu\text{sec}$ . Duty cycle 2%		

Thermal and Mechanical Characteristics		
Storage temperature range	$T_{STG}$	$-65^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-65^\circ\text{C}$ to $150^\circ\text{C}$
Maximum thermal resistance	$R_{\theta JC}$	$45^\circ\text{C/W}$ Junction to Case
Weight		.0047 ounces (.012 grams) typical

**Microsemi Corp.**  
**Colorado**

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# HSM180, HSM190

Figure 1  
Typical Forward Characteristics

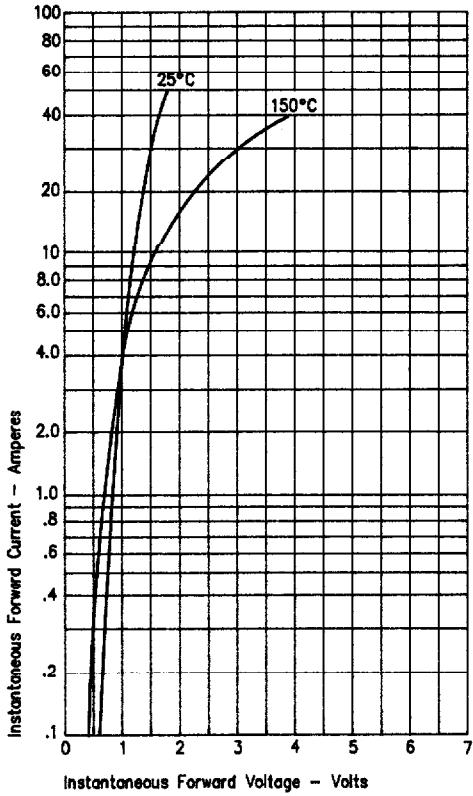


Figure 3  
Typical Junction Capacitance

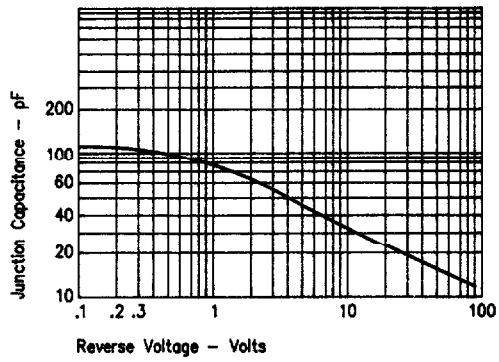


Figure 2  
Typical Reverse Characteristics

