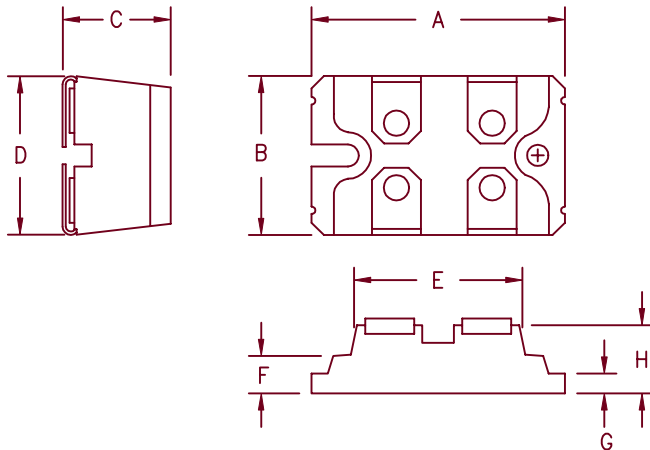


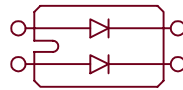
# 2 X 100A Schottky Barrier Rectifier

## SPB10080 — SPB100100



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.494	1.504	37.95	38.20	
B	0.976	0.986	24.79	25.04	
C	0.472	0.480	12.00	12.24	
D	0.990	1.000	25.15	25.40	
E	1.049	1.059	26.67	26.90	
F	0.164	0.174	4.16	4.42	
G	0.080	0.084	2.03	2.13	
H	0.372	0.378	9.45	9.60	

SOT-227



Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SPB10080		80V	80V
SPB10090		90V	90V
SPB100100	DSS2x61-01A STPS80H100TV STPS160H100TV	100V	100V

- 2500V isolation – Terminals to Base
- Low Forward Voltage Drop
- 2 Schottky Rectifiers in one pkg.
- 80–100V @ 100A/leg
- Low Switching losses

### Electrical Characteristics

Average forward current per leg	$I_{F(AV)}$ 100 Amps	$T_C = 123^\circ\text{C}$
Average forward current per package	$I_{F(AV)}$ 200 Amps	$T_C = 123^\circ\text{C}$
Maximum surge current per leg	$I_{FSM}$ 1600 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Maximum repetitive reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1 \text{ KHz}, 25^\circ\text{C}, 1 \mu\text{sec square wave}$
Max peak forward voltage per leg	$V_{FM}$ 0.92 Volts	$I_{FM} = 100\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current per leg	$I_{RM}$ 3 mA	$V_{RRM}, T_J = 25^\circ\text{C}^*$
Max peak reverse current per leg	$V_{ISOL}$ 2500 VDC	any terminal to base
Typical junction capacitance per leg	$C_J$ 3000 pF	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Max thermal resistance per leg	$R_{\theta JC}$	$0.50^\circ\text{C/W}$
Max thermal resistance per pkg	$R_{\theta JC}$	$0.25^\circ\text{C/W}$
Mounting Torque		9–13 inch pounds
Weight		1.1 ounces (30 grams) typical

# SPB10080 — SPB100100

Figure 1  
Typical Forward Characteristics — Per Leg

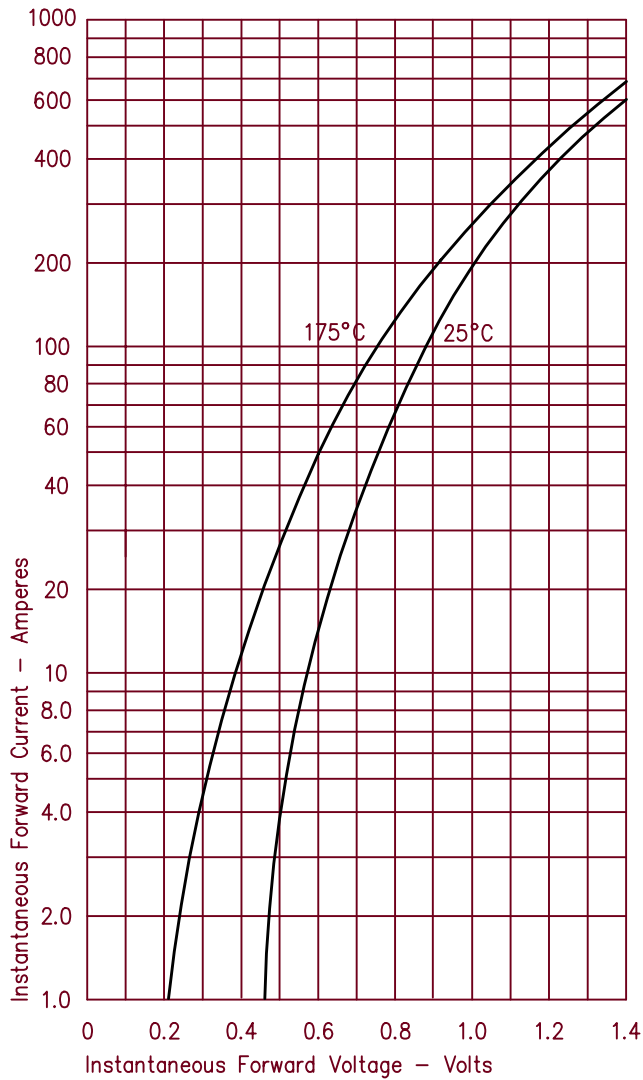


Figure 3  
Typical Junction Capacitance — Per Leg

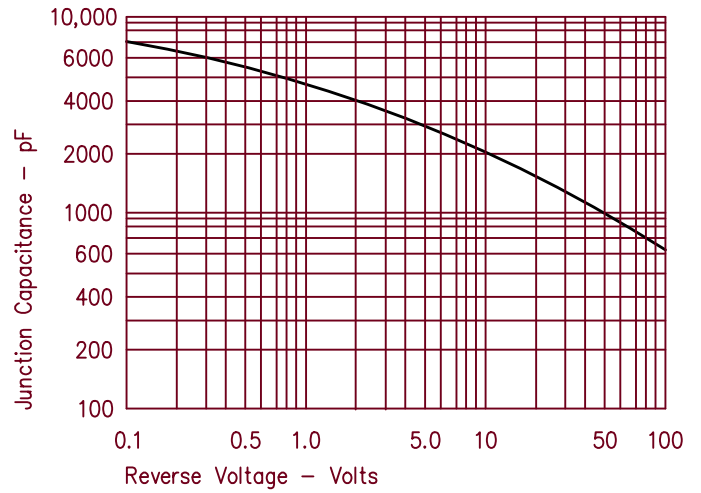


Figure 4  
Forward Current Derating — Per Leg

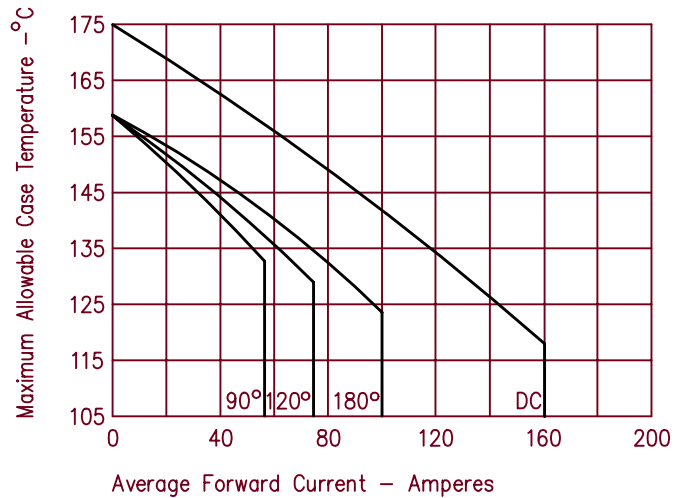


Figure 2  
Typical Reverse Characteristics — Per Leg

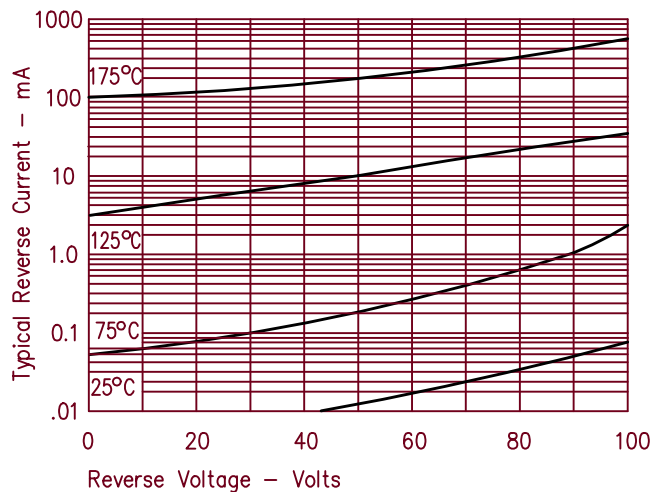


Figure 5  
Maximum Forward Power Dissipation — Per Leg

