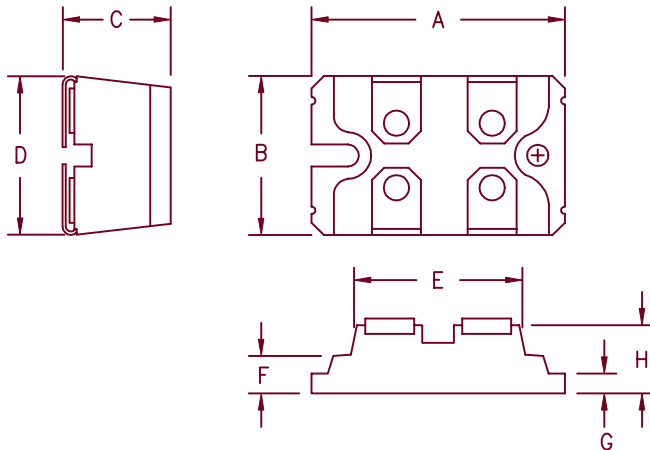


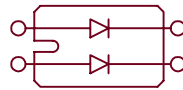
2 X 100A Schottky Barrier Rectifier

SPB10035 — SPB10045



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
SPB10035		35V	35V
SPB10040		40V	40V
SPB10045	DSS2x81-0045B STPS120H45TV STPS160H45TV	45V	45V

- 2500V isolation – Terminals to Base
- Low Forward Voltage Drop
- 2 Schottky Rectifiers in one pkg.
- 35–45V @ 100A/leg
- Low Switching losses

Electrical Characteristics

Average forward current per leg	$I_{F(AV)}$ 100 Amps	$T_C = 103^\circ\text{C}$
Average forward current per package	$I_{F(AV)}$ 200 Amps	$T_C = 103^\circ\text{C}$
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} 0.57 Volts	$I_{FM} = 100\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current per leg	I_{RM} 5 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 5500 pF	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	-55°C to 175°C
Operating junction temp range	T_J	-55°C to 150°C
Max thermal resistance per leg	$R_{\theta JC}$	0.50°C/W
Max thermal resistance per pkg	$R_{\theta JC}$	0.25°C/W
Mounting Torque		9–13 inch pounds
Weight		1.1 ounces (30 grams) typical

SPB10035 — SPB10045

Figure 1
Typical Forward Characteristics — Per Leg

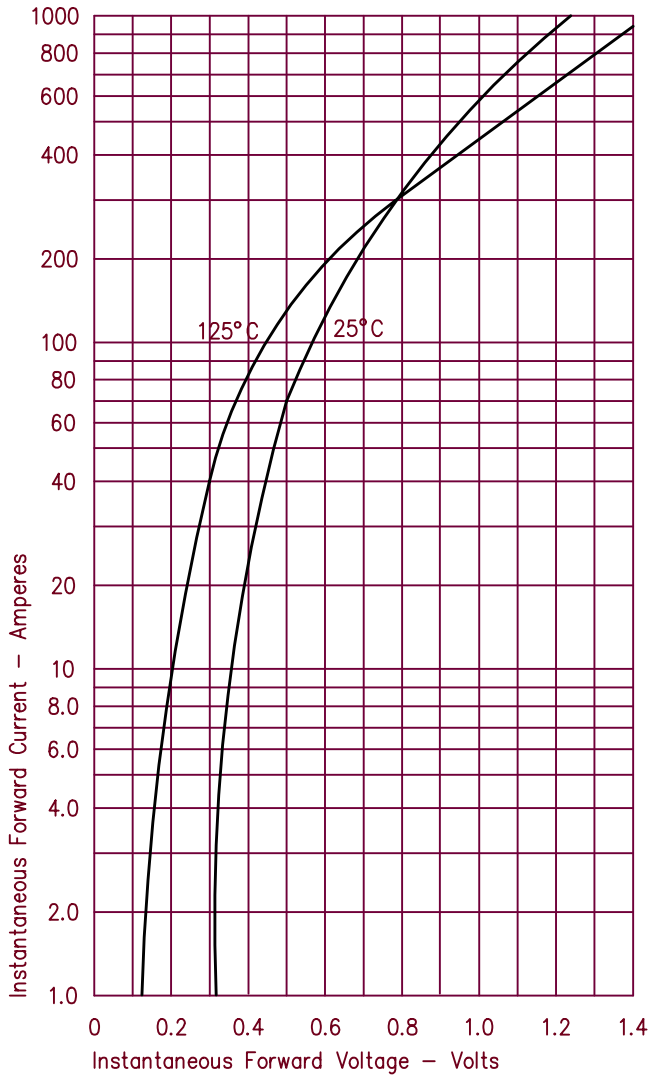


Figure 3
Typical Junction Capacitance — Per Leg

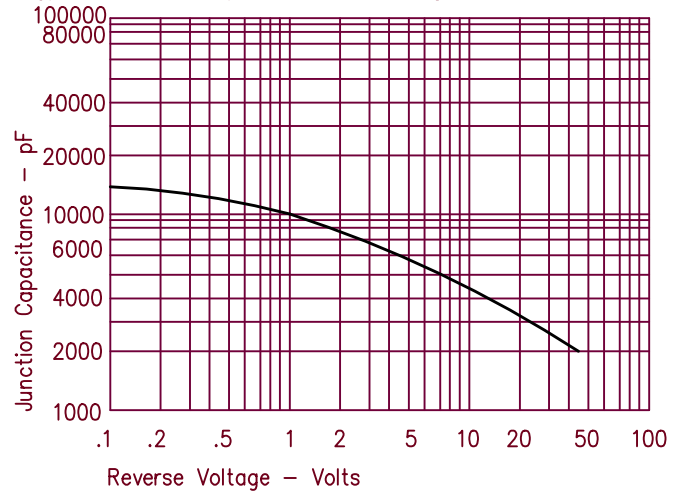


Figure 4
Forward Current Derating — Per Leg

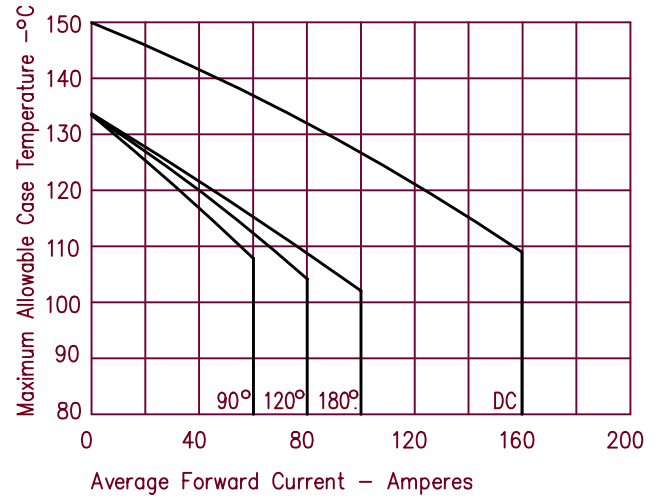


Figure 2
Typical Reverse Characteristics — Per Leg

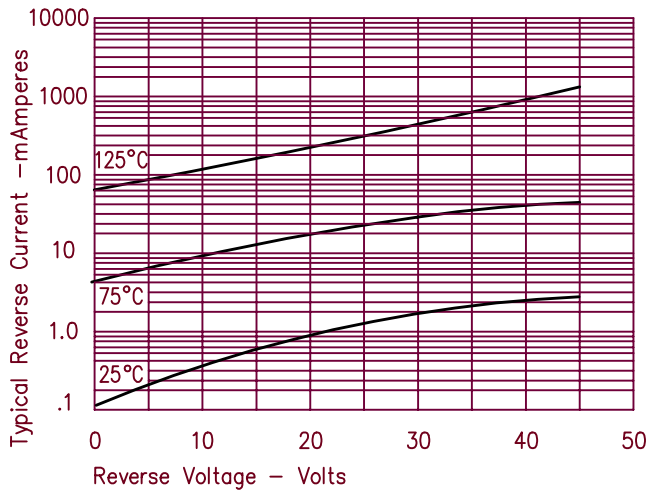
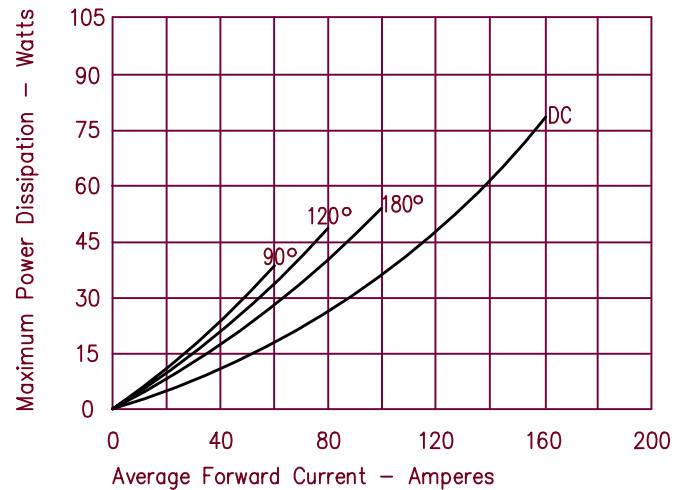


Figure 5
Maximum Forward Power Dissipation — Per Leg





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