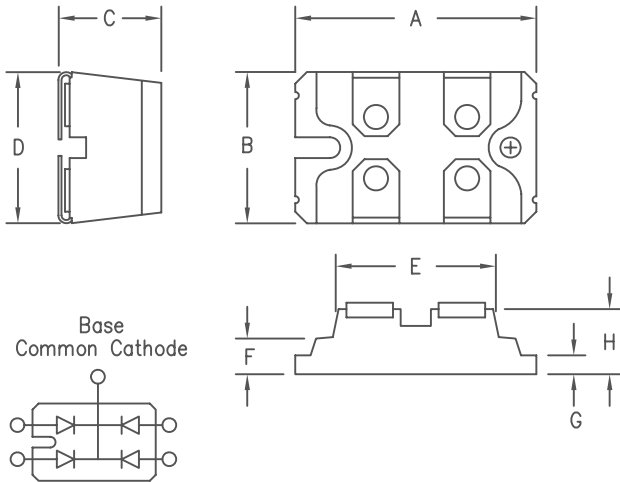


# 4 X 80A Schottky Barrier Rectifier SPB8035 — SPB8045



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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SPB8035	35V	35V
SPB8040	40V	40V
SPB8045	45V	45V

- Common Cathode Base
- Low Forward Voltage Drop
- 4 Schottky Rectifiers in one pkg.
- 35–45V @ 80A/leg
- Low Switching losses

Electrical Characteristics		
Average forward current per leg	$I_{F(AV)}$ 80 Amps	$T_C = 95^\circ\text{C}$ Square wave
Average forward current per package	$I_{F(AV)}$ 320 Amps	$T_C = 95^\circ\text{C}$ Square wave
Maximum surge current per leg	$I_{FSM}$ 1250 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	$I_{FM} = 80\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current per leg	$I_{RM}$ 4 mA	$V_{RRM}, T_J = 25^\circ\text{C}^*$
Typical junction capacitance per leg	$C_J$ 3500 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 $150^\circ\text{C}$
Max thermal resistance per leg	$R_{\theta JC}$	$0.60^\circ\text{C/W}$
Max thermal resistance per pkg	$R_{\theta JC}$	$0.15^\circ\text{C/W}$
Mounting Torque		9–13 inch pounds
Weight		1.1 ounces (30 grams) typical

# SPB8035 — SPB8045

Figure 1  
Typical Forward Characteristics — Per Leg

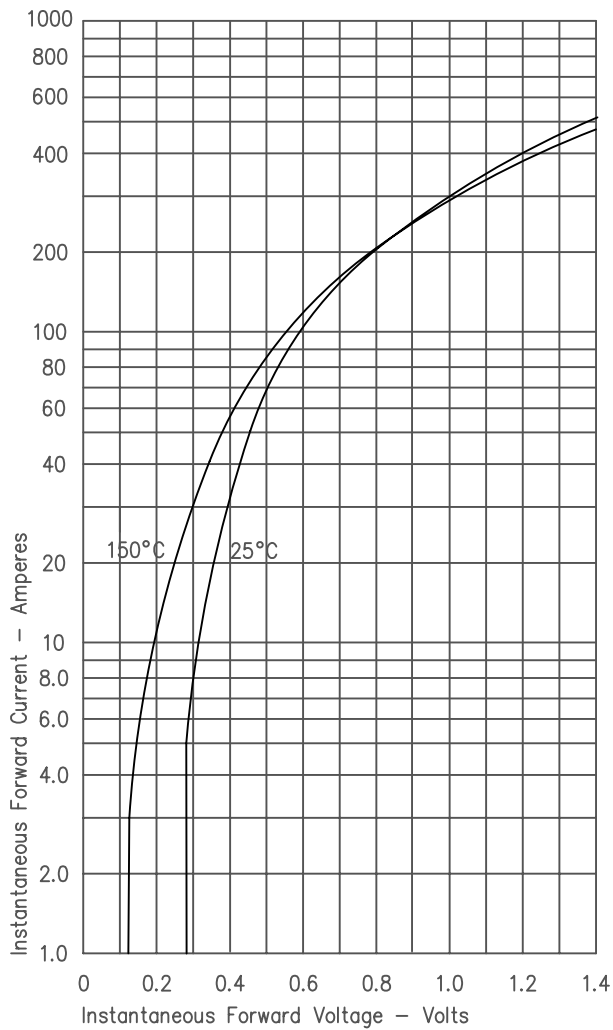


Figure 3  
Typical Junction Capacitance — Per Leg

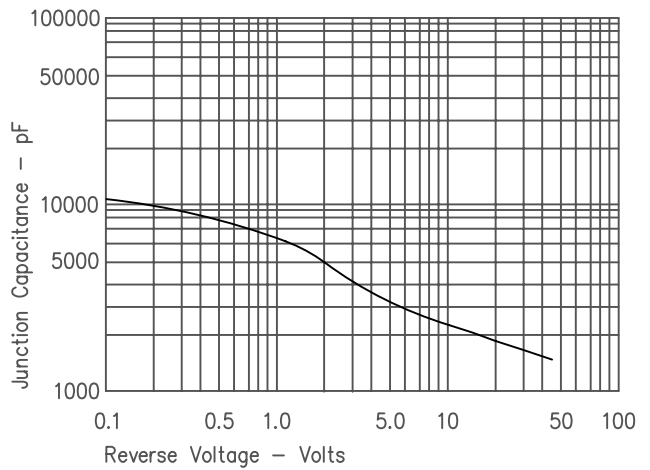


Figure 4  
Forward Current Derating — Per Leg

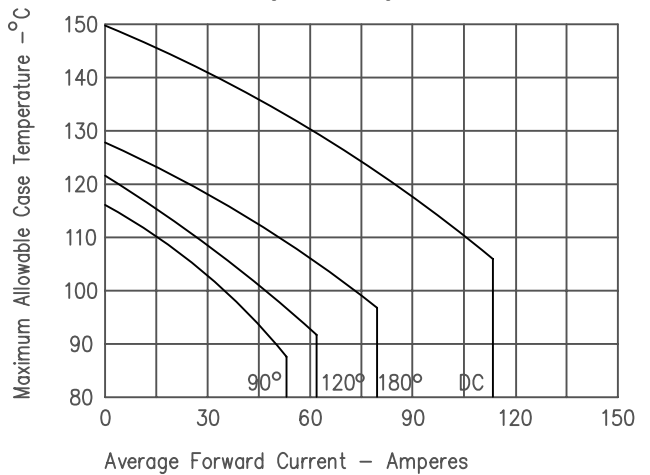


Figure 2  
Typical Reverse Characteristics — Per Leg

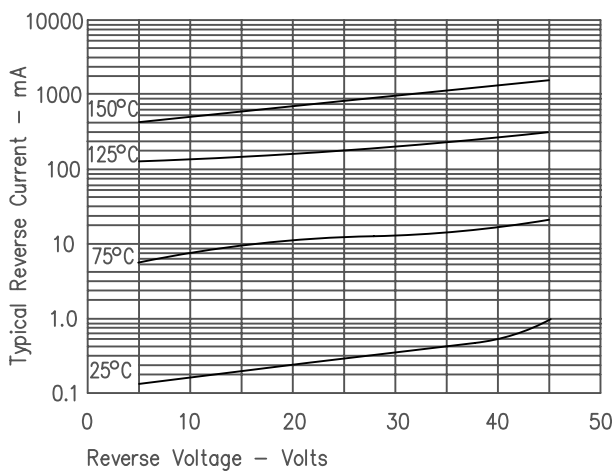


Figure 5  
Maximum Forward Power Dissipation — Per Leg

