Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

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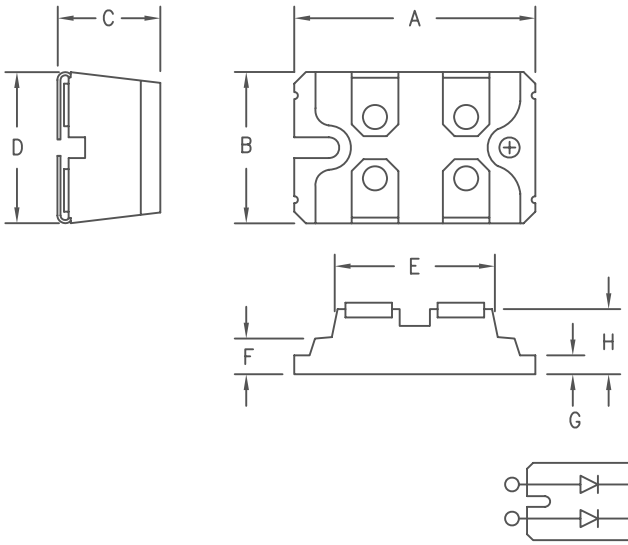
# 2 X 160A Schottky Barrier Rectifier

# SPB16080 – SPB160100




| Dim. | Inches | | Millimeter | | |
|---|---|---|---|---|---|
| | Minimum | Maximum | Minimum | Maximum | Notes |
| 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 |
|---|---|---|---|
| SPB16080 | DSS2x110–080A | 80V | 80V |
| SPB16090 | | 90V | 90V |
| SPB160100 | | 100V | 100V |

- 2500V isolation – Terminals to Base
- Low Forward Voltage Drop
- 2 Schottky Rectifiers in one pkg.
- 80–100V @ 160A/leg
- Low Switching losses

## Electrical Characteristics

| | | | |
|---|---|---|---|
| Average forward current per leg | $I_{F(AV)}$ | 160 Amps | $T_C$ = 101°C |
| Average forward current per package | $I_{F(AV)}$ | 320 Amps | $T_C$ = 101°C |
| Maximum surge current per leg | $I_{FSM}$ | 2500 Amps | 8.3ms, half sine, $T_J$ = 175°C |
| Maximum repetitive reverse current per leg | $I_{R(OV)}$ | 2 Amps | f = 1 KHz, 25°C, 1 μsec square wave |
| Max peak forward voltage per leg | $V_{FM}$ | 0.92 Volts | $I_{FM}$ = 160A; $T_J$ = 25°C* |
| Max peak reverse current per leg | $I_{RM}$ | 5 mA | $V_{RRM}$, $T_J$ = 25°C* |
| Max peak reverse current per leg | $V_{ISOL}$ | 2500 VDC | any terminal to base |
| Typical junction capacitance per leg | $C_J$ | 4800 pF | $V_R$ = 5.0V, $T_J$ = 25°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 175°C |
| Max thermal resistance per leg | $R_{\theta JC}$ | 0.35°C/W |
| Max thermal resistance per pkg | $R_{\theta JC}$ | 0.18°C/W |
| Mounting Torque | | 9–13 inch pounds |
| Weight | | 1.1 ounces (30 grams) typical |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05–30–07 Rev. 1

# SPB16080 – SPB160100

Figure 1
Typical Forward Characteristics – Per Leg

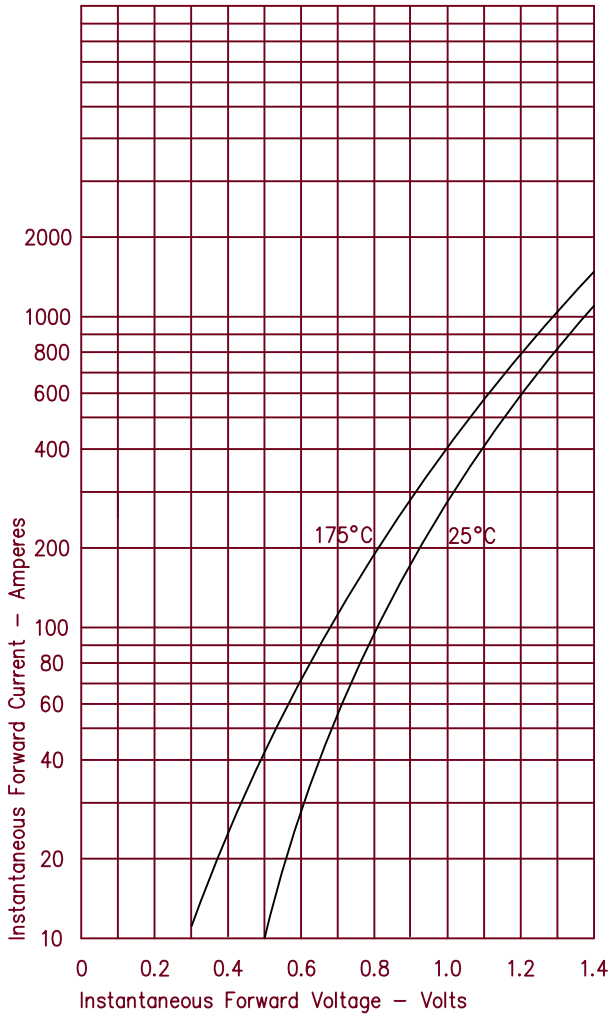


Figure 2
Typical Reverse Characteristics – Per Leg

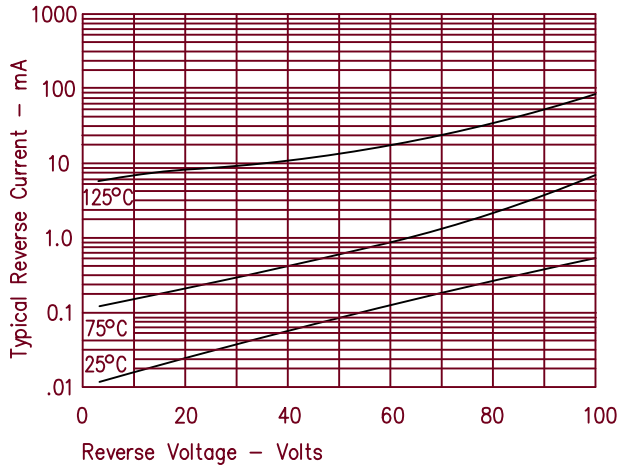


Figure 3
Typical Junction Capacitance – Per Leg

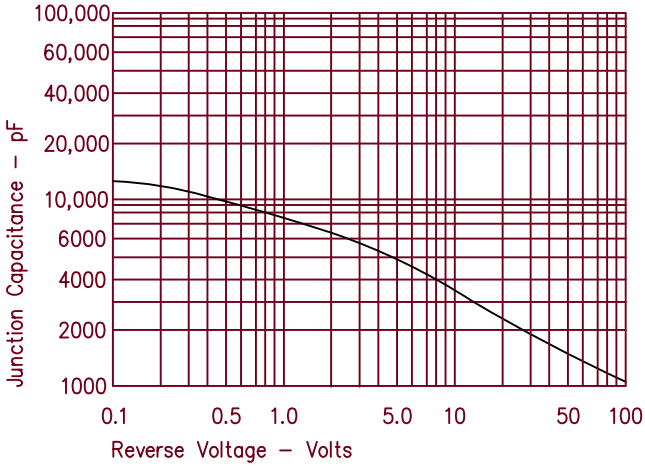


Figure 4
Forward Current Derating – Per Leg

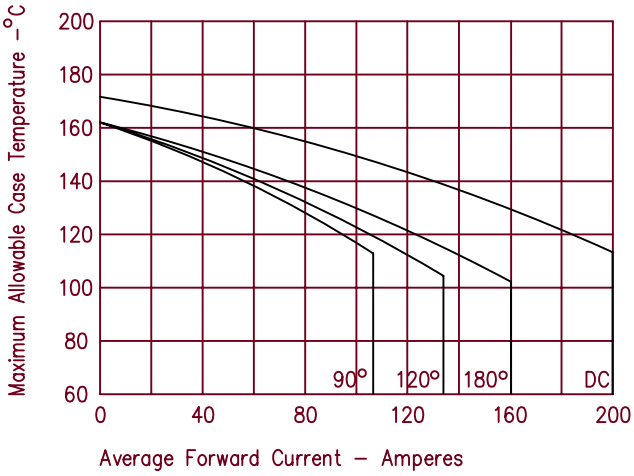


Figure 5
Maximum Forward Power Dissipation – Per Leg