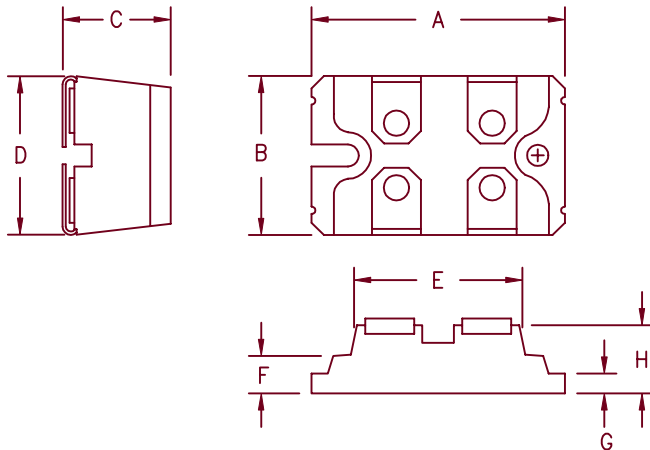


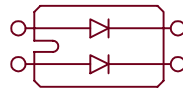
2 X 100A Schottky Barrier Rectifier

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 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 | $R_{\theta JC}$ | 0.50°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 |

SPB10080 — SPB100100

Figure 1
Typical Forward Characteristics — Per Leg

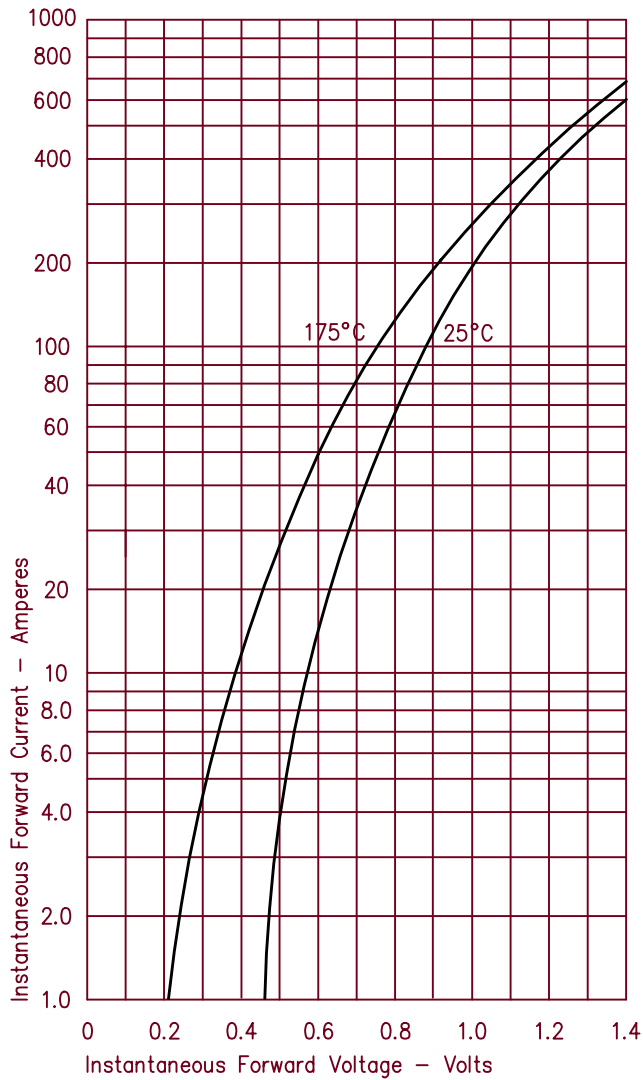


Figure 3
Typical Junction Capacitance — Per Leg

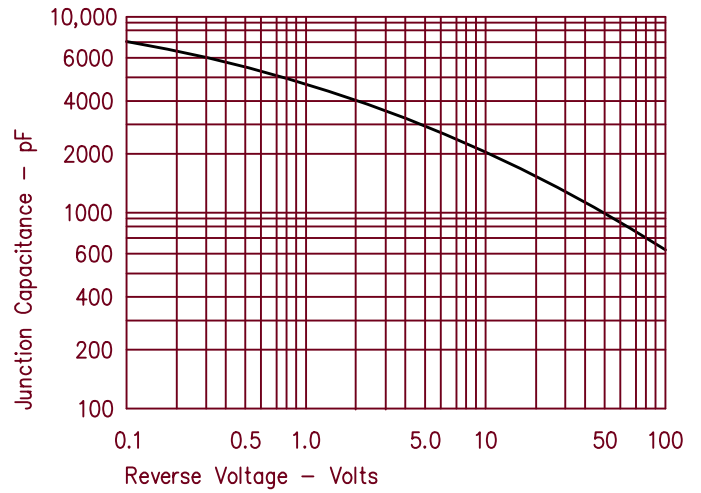


Figure 4
Forward Current Derating — Per Leg

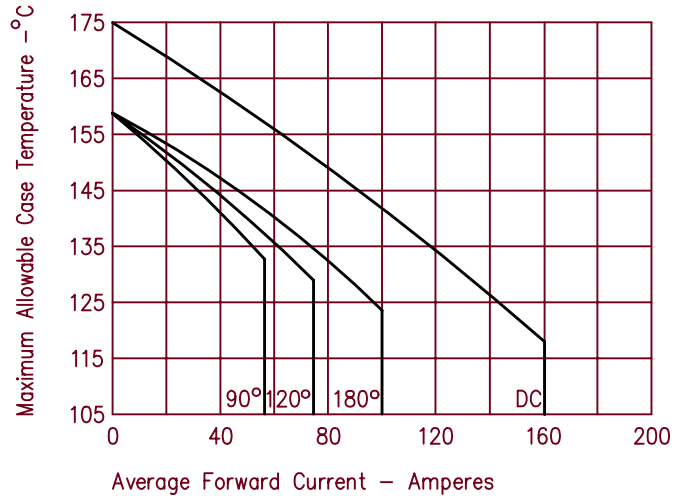


Figure 2
Typical Reverse Characteristics — Per Leg

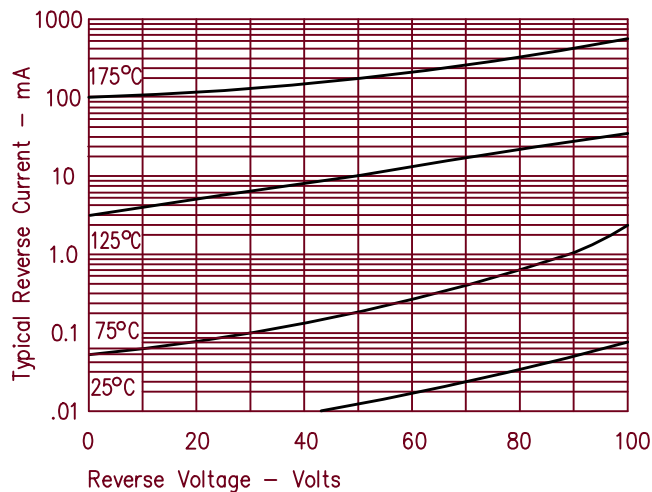
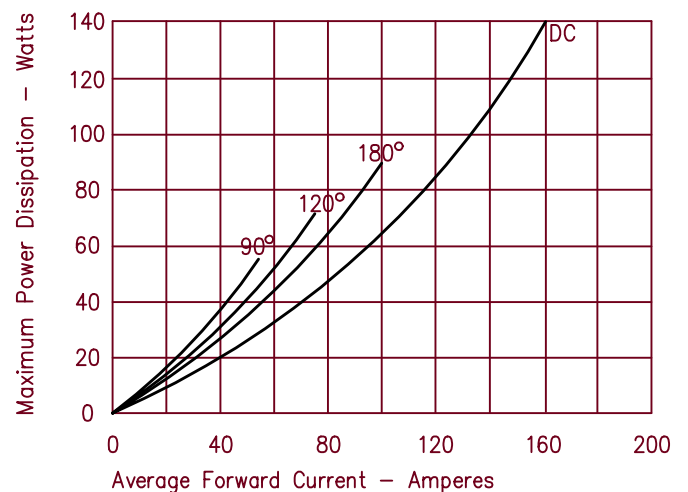


Figure 5
Maximum Forward Power Dissipation — Per Leg





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