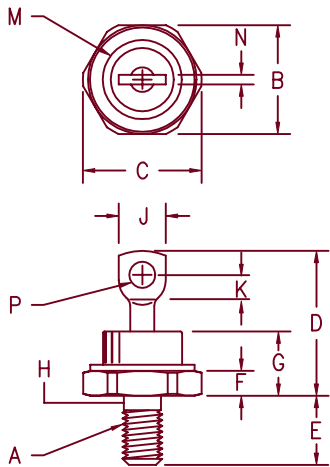


60 Amp Schottky Rectifier SBR6090 — SBR60100



- Notes:
1. Full threads within 2 1/2 threads
 2. Standard Polarity: Stud is Cathode
Reverse Polarity: Stud is Anode

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|--------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | --- | --- | --- | --- | 1/4-28 |
| B | .669 | .688 | 17.00 | 17.47 | |
| C | --- | .794 | --- | 20.16 | |
| D | .750 | 1.00 | 19.05 | 25.40 | |
| E | .422 | .453 | 10.72 | 11.50 | |
| F | .115 | .200 | 2.93 | 5.08 | |
| G | --- | .450 | --- | 11.43 | |
| H | .220 | .249 | 5.59 | 6.32 | 1 |
| J | --- | .375 | --- | 9.52 | |
| K | .156 | --- | 3.97 | --- | |
| M | --- | .510 | --- | 12.95 | Dia |
| N | --- | .080 | --- | 2.03 | |
| P | .140 | .175 | 3.56 | 4.44 | Dia |

DO-203AB (DO-5)

Microsemi Catalog
Number

SBR6090*
SBR60100*

Peak Reverse
Voltage

90V
100V

*Add Suffix R For Reverse Polarity

- Schottky barrier rectifier
- Hermetic packaging
- Guard ring protected
- Reverse Energy Tested
- 175°C junction temperature
- V_{RRM} - 90 to 100 Volts

Electrical Characteristics

| | | |
|-------------------------------------|---------------------|--|
| Average forward current | $I_F(AV)$ 60 Amps | $T_C = 130^\circ C$, square wave, $R_{\theta JC} = 1.0$ @/W |
| Maximum surge current | I_{FSM} 1000 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max repetitive peak reverse current | $I_{R(OV)}$ 2 Amp | $f = 1$ KHz, $25^\circ C$, $1 \mu sec$ square wave |
| Max peak forward voltage | V_{FM} .89 Volts | $I_{FM} = 60A: 25^\circ C *$ |
| Max peak forward voltage | V_{FM} .70 Volts | $I_{FM} = 60A: 125^\circ C *$ |
| Max peak reverse current | I_{RM} 50 mA | $V_{RRM}, T_J = 125^\circ C *$ |
| Max peak reverse current | I_{RM} 1.0 mA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 1250 pF | $V_R = 5.0V, T_J = 25^\circ C$ |

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

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|-----------------|----------------------------------|
| Storage temp range | T_{STG} | $-65^\circ C$ to $175^\circ C$ |
| Operating junction temp range | T_J | $-65^\circ C$ to $175^\circ C$ |
| Maximum thermal resistance | $R_{\theta JC}$ | $1.0^\circ C/W$ Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | $0.5^\circ C/W$ Case to sink |
| Mounting torque | | 25-30 inch pounds |
| Weight | | .54 ounces (15.3 grams) typical |

SBR6090 — SBR60100

Figure 1
Typical Forward Characteristics

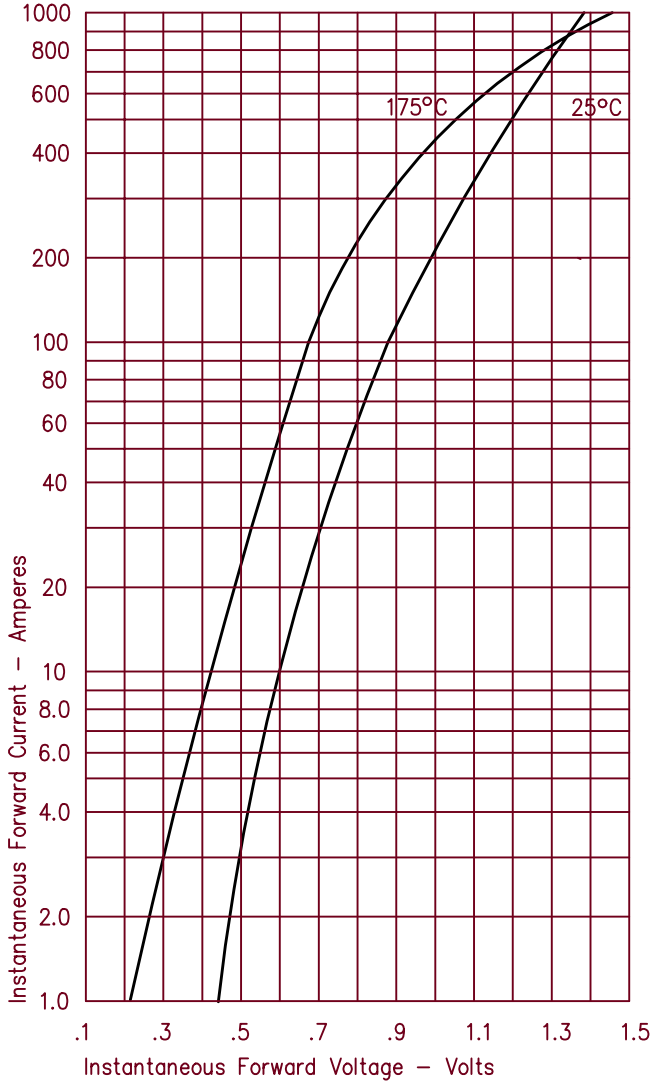


Figure 3
Typical Junction Capacitance

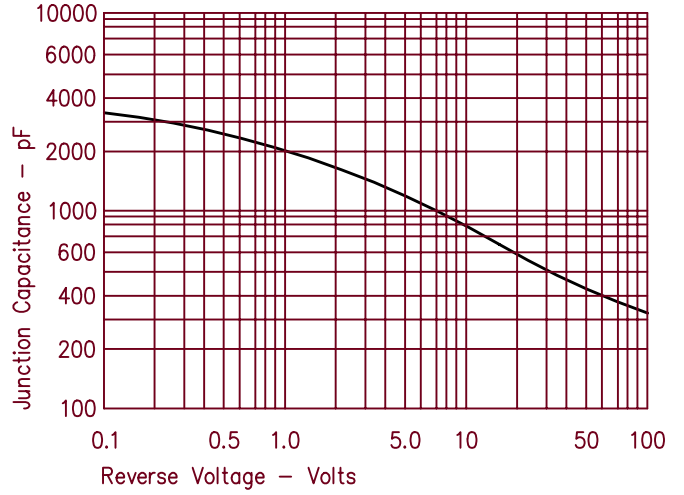


Figure 4
Forward Current Derating

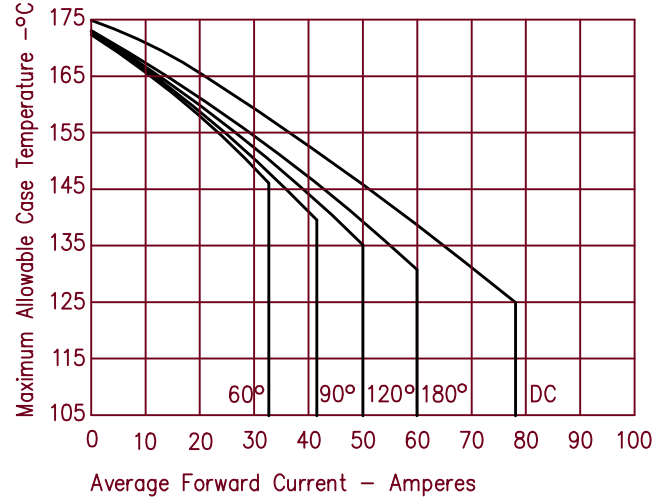


Figure 2
Typical Reverse Characteristics

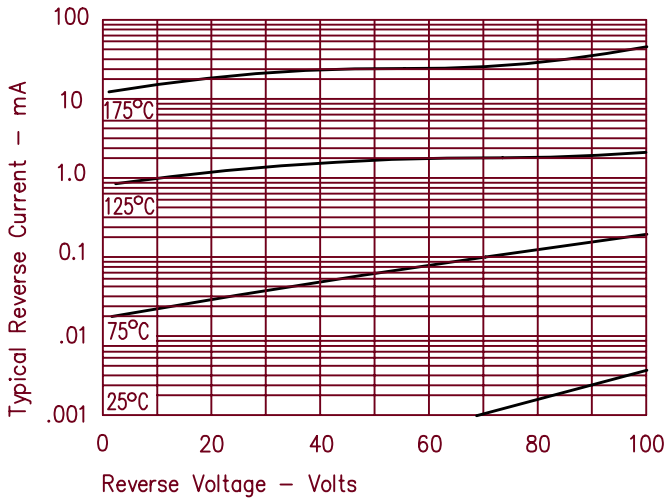


Figure 5
Maximum Forward Power Dissipation

