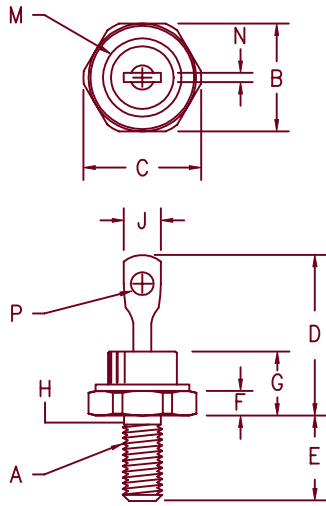


30 Amp Schottky Rectifier SBR3035 — SBR3050



- Notes:
1. 10-32 UNF3A threads
 2. Full threads within 2 1/2 threads
 3. Standard Polarity:
Stud is Cathode. Reverse Polarity Stud is Anode

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | ---- | ---- | ---- | ---- | 1 |
| B | .424 | .437 | 10.77 | 11.10 | |
| C | ---- | .505 | ---- | 12.82 | |
| D | .600 | .800 | 15.24 | 20.32 | |
| E | .422 | .453 | 10.72 | 11.50 | |
| F | .075 | .175 | 1.91 | 4.44 | |
| G | ---- | .405 | ---- | 10.29 | |
| H | .163 | .189 | 4.15 | 4.80 | 2 |
| J | ---- | .250 | 2.54 | 3.56 | |
| M | ---- | .350 | ---- | 8.89 | Dia. |
| N | .020 | .065 | .510 | 1.65 | |
| P | .070 | .100 | 1.78 | 2.54 | Dia. |

D0203AA (D04)

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| SBR3035* | 21FQ035 30FQ035 | 35V | 35V |
| SBR3040* | 21FQ040 30FQ040 | 40V | 40V |
| SBR3045* | 21FQ045 30FQ045 | 45V | 45V |
| SBR3050* | | 50V | 50V |

*Add Suffix R For Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- V_{RRM} 35 to 50V
- 30 Amperes
- Reverse Energy Tested

Electrical Characteristics

| | | |
|-------------------------------------|--------------------|--|
| Average forward current | $I_F(AV)$ 30 Amps | $T_C = 145^\circ C$ Square wave, $R_{\theta JC} = 1.5^\circ C/W$ |
| Maximum surge current | I_{FSM} 600 Amps | 8.3 ms, half sine $T_J = 175^\circ C$ |
| Max repetitive peak reverse current | $I_R(OV)$ 2 Amps | $f = 1$ KHz, $25^\circ C$, 1 μ sec Square wave |
| Max peak forward voltage | V_{FM} .49 Volts | $I_{FM} = 30A: T_J = 175^\circ C^*$ |
| Max peak forward voltage | V_{FM} .63 Volts | $I_{FM} = 30A: T_J = 25^\circ C^*$ |
| Max peak reverse current | I_{RM} 25 mA | $V_{RRM}, T_J = 125^\circ C^*$ |
| Max peak reverse current | I_{RM} 1.5 mA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 1800 pF | $V_R = 5.0V, T_J = 25^\circ C$ |

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|-----------------|----------------------------------|
| Storage temp range | T_{STG} | $-55^\circ C$ to $175^\circ C$ |
| Operating junction temp range | T_J | $-55^\circ C$ to $175^\circ C$ |
| Max thermal resistance | $R_{\theta JC}$ | $1.5^\circ C/W$ Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | $0.5^\circ C/W$ Case to sink |
| Mounting torque | | 12-15 inch pounds |
| Weight | | 0.2 ounces (6.0 grams) typical |

SBR3035 — SBR3050

Figure 1
Typical Forward Characteristics

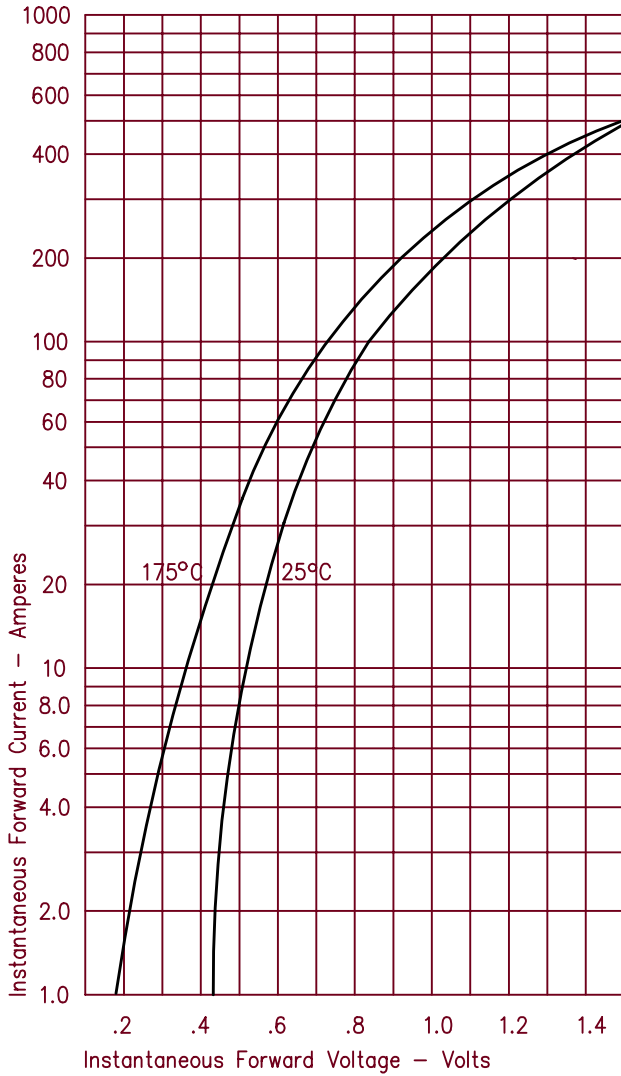


Figure 3
Typical Junction Capacitance

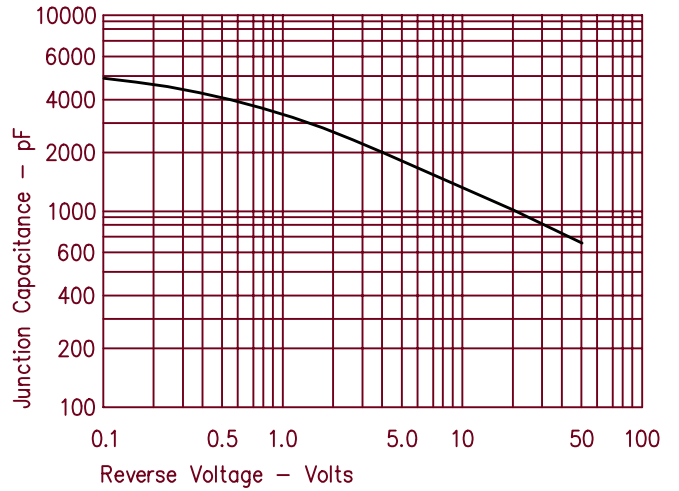


Figure 4
Forward Current Derating

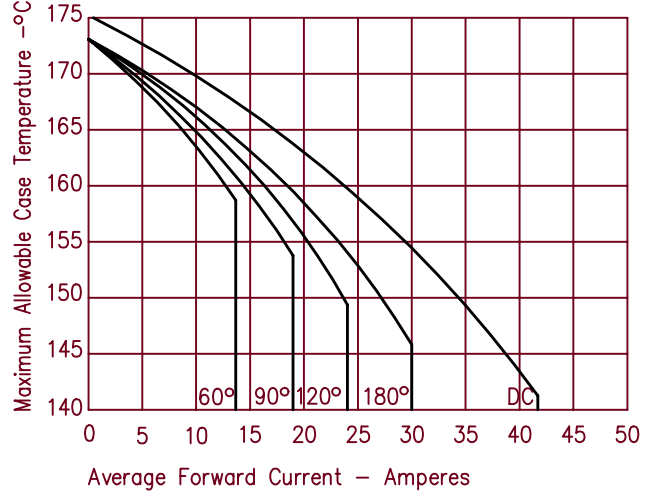


Figure 2
Typical Reverse Characteristics

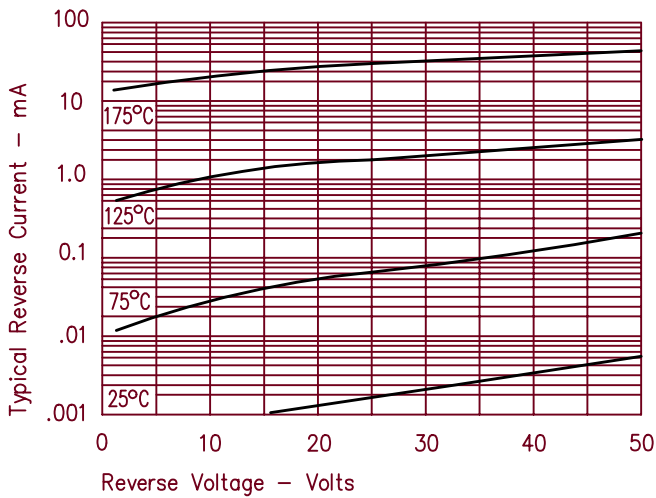
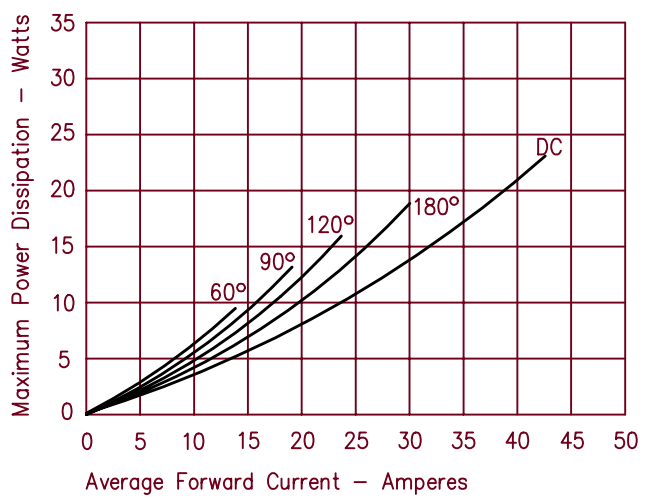


Figure 5
Maximum Forward Power Dissipation



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