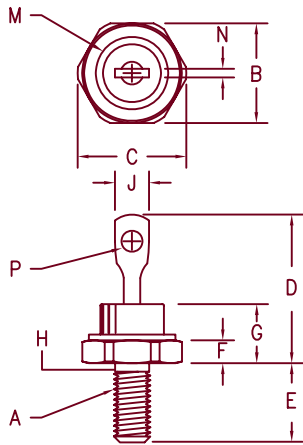


25 Amp Schottky Rectifier

SBR2535 — SBR2545



- 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 | --- | .310 | --- | 7.87 | |
| M | --- | .350 | --- | 8.89 | Dia. |
| N | .020 | .065 | .510 | 1.65 | |
| P | .060 | .100 | 1.53 | 2.54 | Dia. |

D0203AA (D04)

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| SBR2535* | 20FQ035 | 35V | 35V |
| SBR2540* | 20FQ040 | 40V | 40V |
| SBR2545* | 20FQ045 | 45V | 45V |

*Add the Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- VRRM – 35 to 45V
- 25 Amperes
- Reverse Energy Tested

Electrical Characteristics

| | | |
|-------------------------------------|---------------------|--|
| Average forward current | $I_{F(AV)}$ 25 Amps | $T_C = 105^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.6^\circ\text{C/W}$ |
| Average forward current | $I_{F(AV)}$ 30 Amps | $T_C = 97^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.6^\circ\text{C/W}$ |
| Maximum surge current | I_{FSM} 600 Amps | 8.3 ms, half sine $T_J = 150^\circ\text{C}$ |
| Max repetitive peak reverse current | $I_{R(OV)}$ 2 Amps | $f = 1 \text{ KHz}$, 25°C , $1 \mu\text{sec}$ Square wave |
| Max peak forward voltage | V_{FM} .53 Volts | $I_{FM} = 25\text{A}$: $T_J = 150^\circ\text{C}^*$ |
| Max peak forward voltage | V_{FM} .58 Volts | $I_{FM} = 25\text{A}$: $T_J = 25^\circ\text{C}^*$ |
| Max peak reverse current | I_{RM} 250 mA | V_{RRM} , $T_J = 125^\circ\text{C}^*$ |
| Max peak reverse current | I_{RM} 2 mA | V_{RRM} , $T_J = 25^\circ\text{C}$ |
| Typical junction capacitance | C_J 1200 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 | TSTG | -55°C to 175°C |
| Operating junction temp range | T_J | -55°C to 150°C |
| Max thermal resistance | $R_{\theta JC}$ | 1.6°C/W Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | 0.5°C/W Case to sink |
| Mounting torque | | 12-15 inch pounds |
| Weight | | 0.2 ounces (6.0 grams) typical |



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05-25-07 Rev. 3

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Figure 1
Typical Forward Characteristics

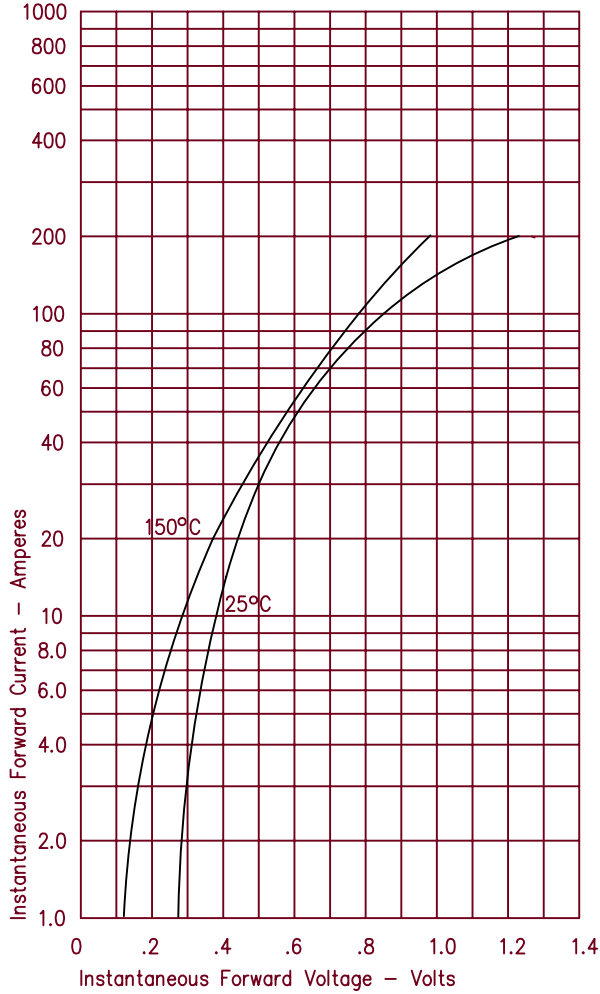


Figure 3
Typical Junction Capacitance

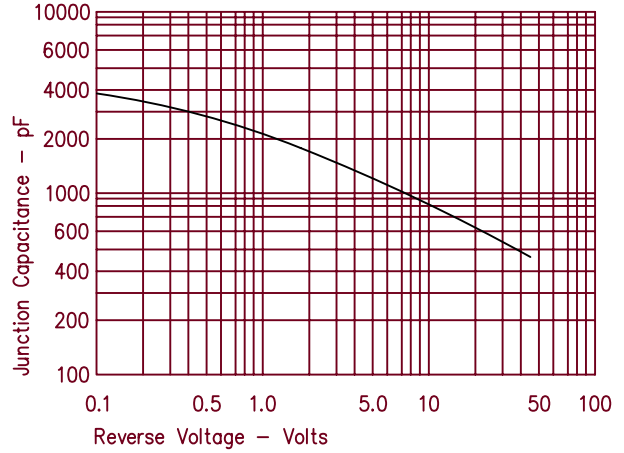


Figure 4
Forward Current Derating

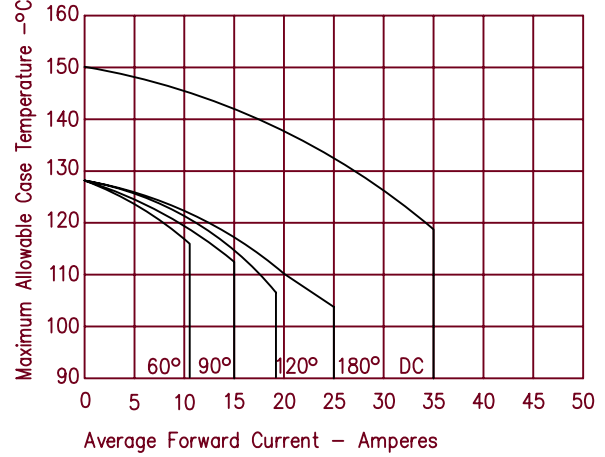


Figure 2
Typical Reverse Characteristics

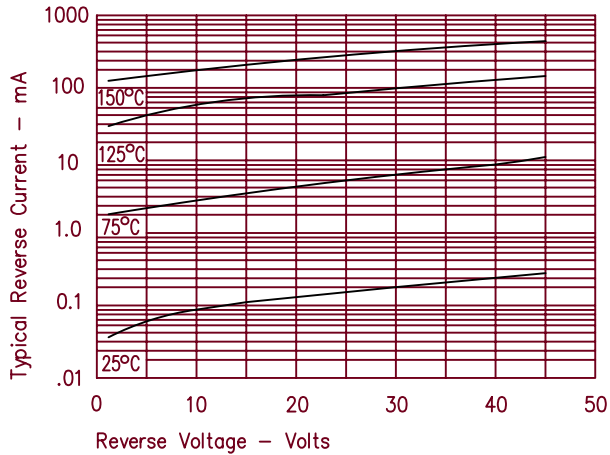


Figure 5
Maximum Forward Power Dissipation

