



Micro Commercial Components
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SB2020CT THRU SB20100CT

20 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

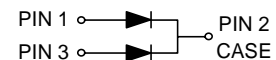
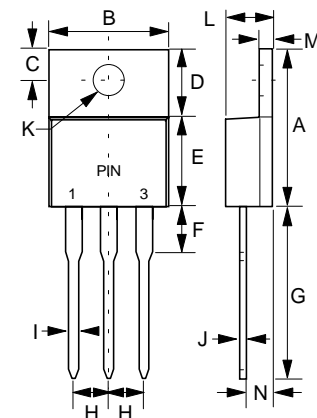
- High Surge Capability
- High Efficiency
- Low Forward Voltage
- High Current Capability
- Low Power Loss

Maximum Ratings

- Operating Junction Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Typical Thermal Resistance 100°C/W Junction to Ambient

| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| SB2020CT | SB2020CT | 20V | 14V | 20V |
| SB2030CT | SB2030CT | 30V | 21V | 30V |
| SB2040CT | SB2040CT | 40V | 28V | 40V |
| SB2050CT | SB2050CT | 50V | 35V | 50V |
| SB2060CT | SB2060CT | 60V | 42V | 60V |
| SB2080CT | SB2080CT | 80V | 56V | 80V |
| SB20100CT | SB20100CT | 100V | 70V | 100V |

TO-220AB



Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|----------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 20 A | $T_C = 90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 150A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .55V .75V .85V | $T_J = 25^\circ\text{C}$ $I_{FM} = 10\text{A};$ |
| 2020CT-2040CT | | | |
| 2050CT-2060CT 2080CT-20100CT | | | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 50mA | $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ |

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .100 | .135 | 2.54 | 3.43 | |
| D | .230 | .270 | 5.84 | 6.86 | |
| E | .380 | .420 | 9.65 | 10.67 | |
| F | ----- | .250 | ----- | 6.35 | |
| G | .500 | .580 | 12.70 | 14.73 | |
| H | .090 | .110 | 2.29 | 2.79 | |
| I | .020 | .045 | 0.51 | 1.14 | |
| J | .012 | .025 | 0.30 | 0.64 | |
| K | .139 | .161 | 3.53 | 4.09 | ∅ |
| L | .140 | .190 | 3.56 | 4.83 | |
| M | .045 | .055 | 1.14 | 1.40 | |
| N | .080 | .115 | 2.03 | 2.92 | |

SB2020CT thru SB20100CT
RATING AND CHARACTERISTIC CURVES

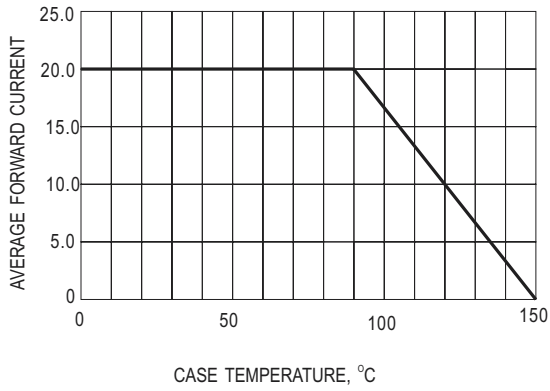


Fig.1- FORWARD CURRENT DERATING CURVE

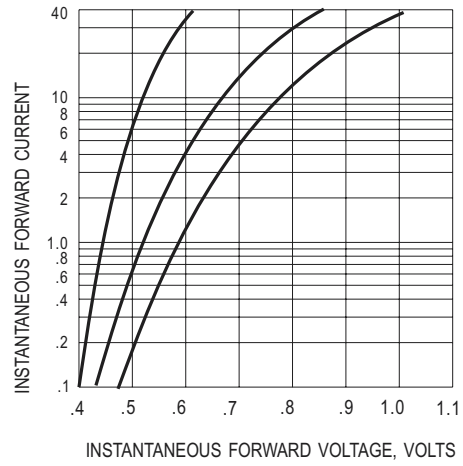


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

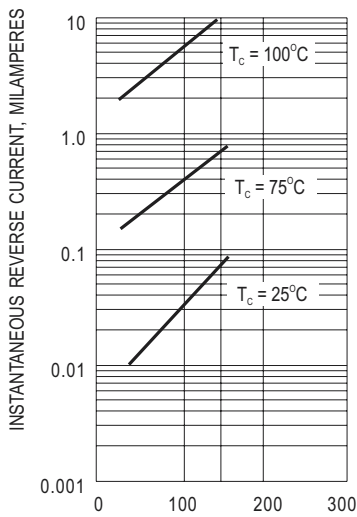


Fig.3- TYPICAL REVERSE CHARACTERISTIC

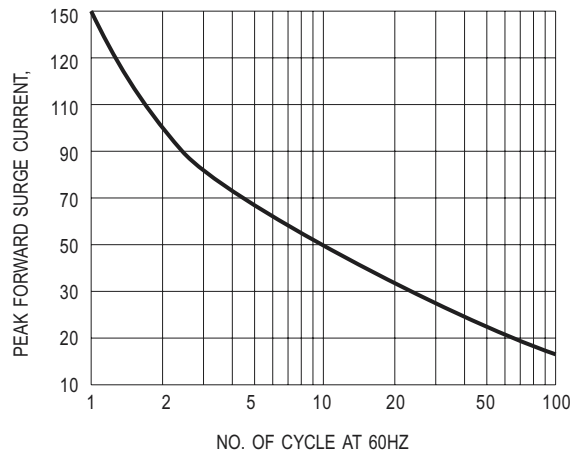


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

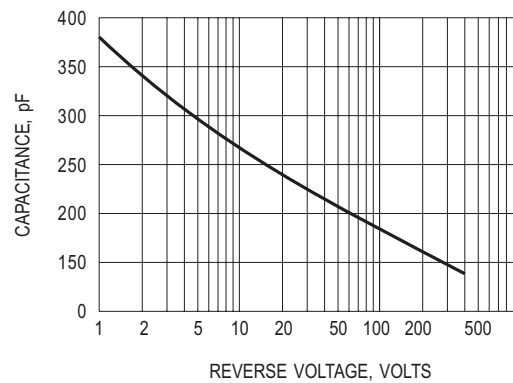


Fig.5- TYPICAL JUNCTION CAPACITANCE