



Micro Commercial Components
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MBR20020CT THRU MBR200100CT

Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

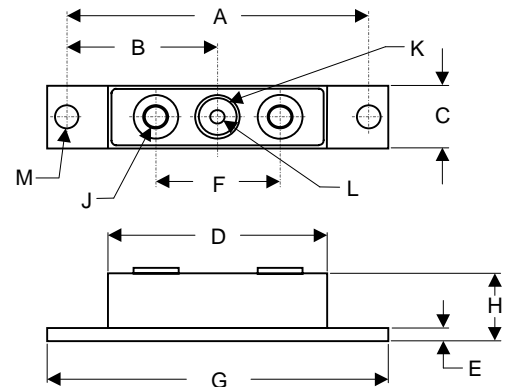
200 Amp Schottky Barrier Rectifier 20 to 100 Volts

Maximum Ratings

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| MBR20020CT | 20V | 14V | 20V |
| MBR20030CT | 30V | 21V | 30V |
| MBR20035CT | 35V | 24.5V | 35V |
| MBR20040CT | 40V | 28V | 40V |
| MBR20045CT | 45V | 31.5V | 45V |
| MBR20060CT | 60V | 42V | 60V |
| MBR20080CT | 80V | 56V | 80V |
| MBR200100CT | 100V | 70V | 100V |

FULL PACK



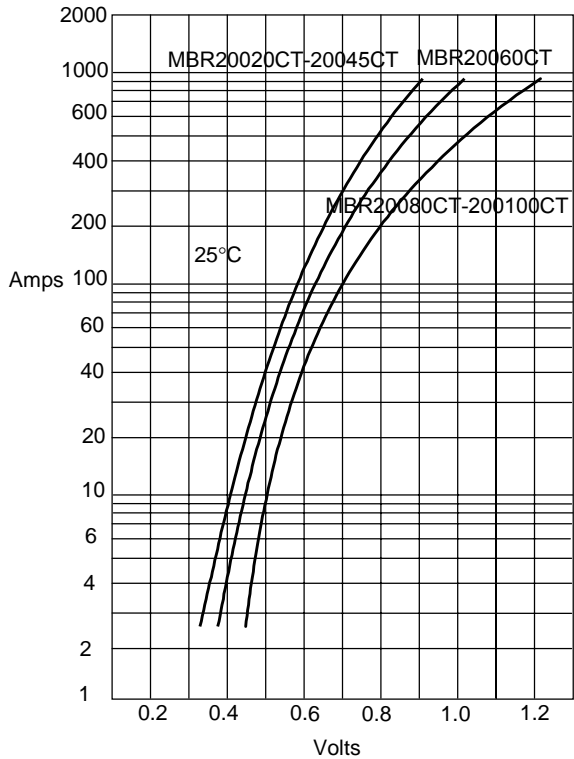
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---------------------------------------------------------|-------------|-------------------------|-------------------------------------------------------|
| Average Forward Current | $I_{F(AV)}$ | 200 A | $T_C = 136^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 1500A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .68 V .75 V .84 V | $I_{FM} = 100 \text{ A};$ $T_J = 25^\circ\text{C}$ |
| 20020-20045CT | | | |
| 20060CT | | | |
| 20080-200100CT | | | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5mA 75mA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 4600pF | Measured at 1.0MHz, $V_R=5.0\text{V}$ |

| DIM | INCHES | | MM | | NOTE |
|-----|-------------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 3.150 | NOM | 80.01 | NOM | |
| B | 1.565 | 1.585 | 39.75 | 40.26 | |
| C | .700 | .800 | 17.78 | 20.32 | |
| D | 2.400 | 2.500 | 60.96 | 63.50 | |
| E | .119 | .132 | 3.02 | 3.35 | |
| F | 1.375 | REF | 34.92 | REF | |
| G | 3.550 | 3.650 | 90.17 | 92.71 | |
| H | .580 | .620 | 14.73 | 15.75 | |
| J | 1/4 -20 UNF | | FULL | | |
| K | .380 | .410 | 9.65 | 10.41 | ∅ |
| L | .185 | .195 | 4.70 | 4.95 | ∅ |
| M | .275 | .295 | 6.99 | 7.49 | ∅ |

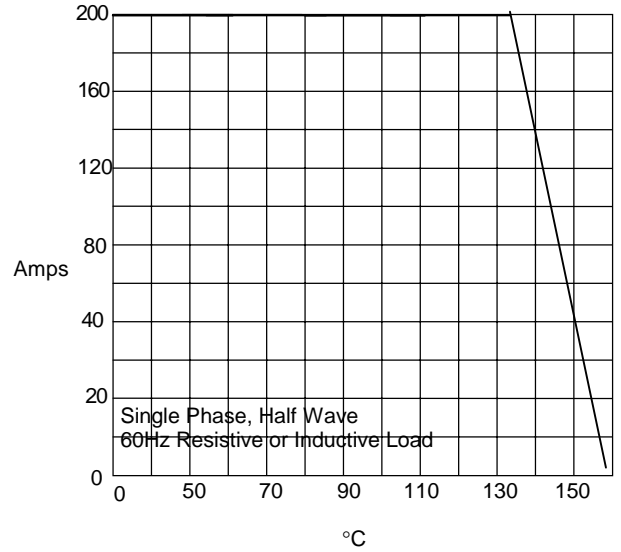
*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

Figure 1
Typical Forward Characteristics



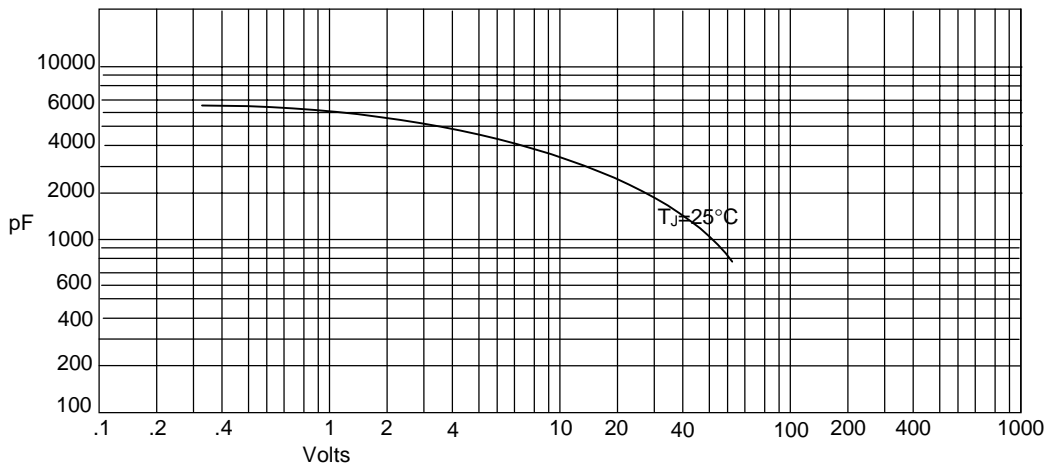
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Case Temperature - °C

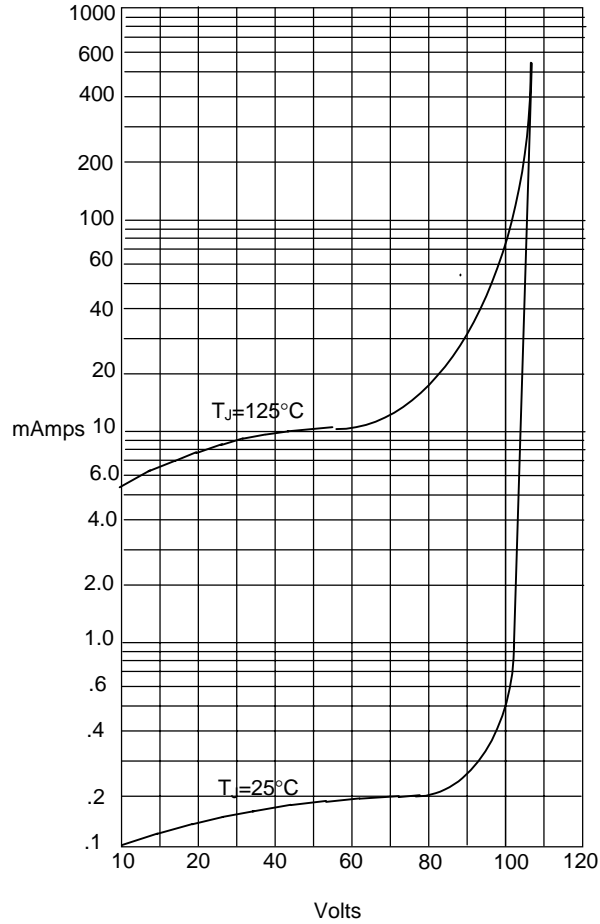
Figure 3
Junction Capacitance



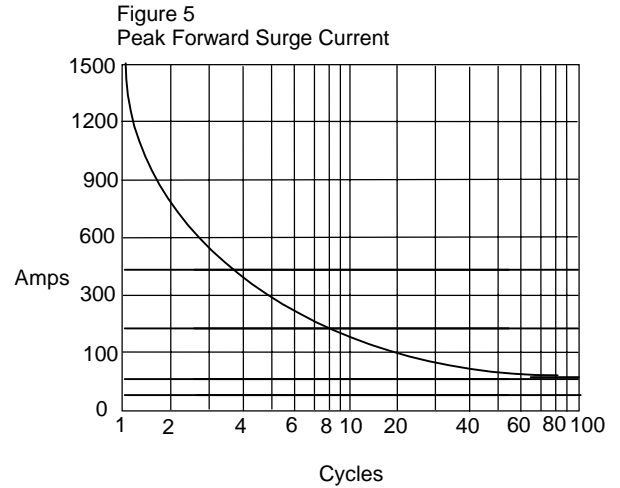
Junction Capacitance - pF versus
Reverse Voltage - Volts



Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles