



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Micro Commercial Components



Micro Commercial Components
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MBR2020CT THRU MBR20100CT

20 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

- Meatl of Silicon Rectifier, Majority Conduction
- Guard ring for transient protection
- High Current Capability, High Efficiency
- Low Forward Voltage Drop
- Marking : type number
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

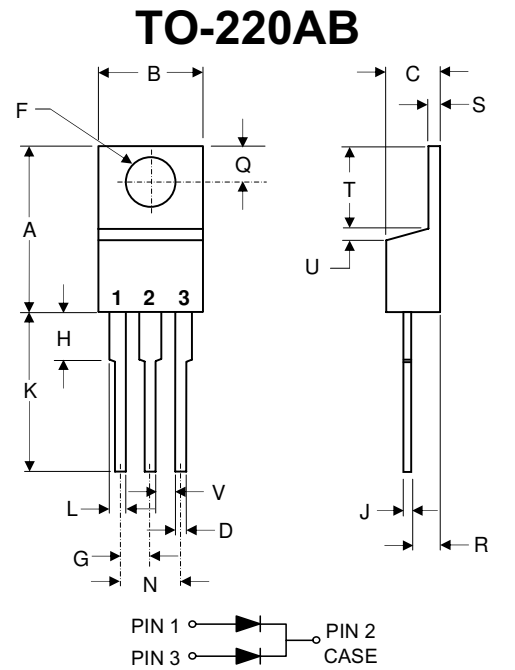
| MCC Catalog Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|--|---------------------|-----------------------------|
| MBR2020CT | 20V | 14V | 20V |
| MBR2030CT | 30V | 21V | 30V |
| MBR2035CT | 35V | 24.5V | 35V |
| MBR2040CT | 40V | 28V | 40V |
| MBR2045CT | 45V | 31.5V | 45V |
| MBR2060CT | 60V | 42V | 60V |
| MBR2080CT | 80V | 56V | 80V |
| MBR20100CT | 100V | 70V | 100V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--|--|
| Average Forward Current | $I_{F(AV)}$ | 20 A | $T_A = 120^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 150A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .70V .80V .85V .84V .95V .95V .72V .85V .85V | $I_{FM} = 10A;$ $T_A = 25^\circ\text{C} *$ $I_{FM} = 20A;$ $T_A = 25^\circ\text{C} *$ $I_{FM} = 20A;$ $T_A = 125^\circ\text{C} *$ |
| 2020CT-2045CT | | | |
| 2060CT | | | |
| 2080CT-20100CT | | | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.1mA 0.15mA 50mA 150mA | $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ |
| 2020CT~2045CT | | | |
| 2060CT~20100CT | | | |
| 2020CT~2045CT | | | |

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

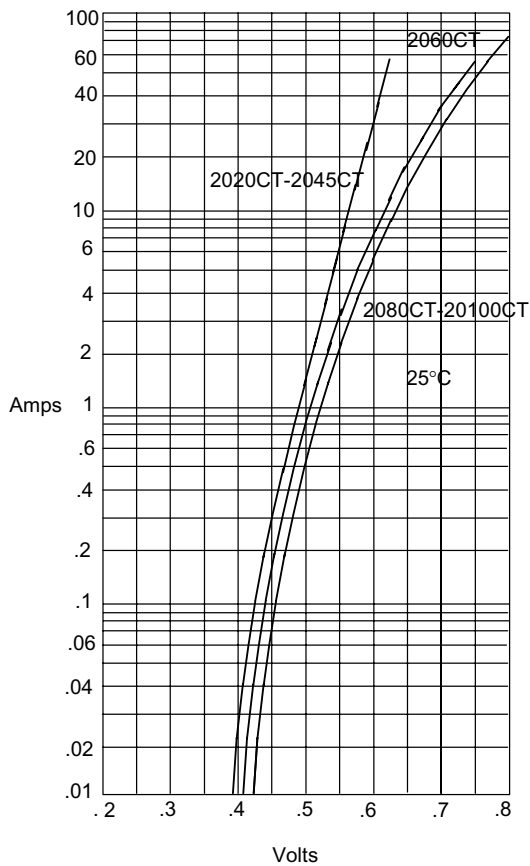
Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .140 | .190 | 3.56 | 4.82 | |
| D | .020 | .045 | 0.51 | 1.14 | |
| F | .139 | .161 | 3.53 | 4.09 | ∅ |
| G | .190 | .110 | 2.29 | 2.79 | |
| H | --- | .250 | --- | 6.35 | |
| J | .012 | .025 | 0.30 | 0.64 | |
| K | .500 | .580 | 12.70 | 14.73 | |
| L | .045 | .060 | 1.14 | 1.52 | |
| N | .190 | .210 | 4.83 | 5.33 | |
| Q | .100 | .135 | 2.54 | 3.43 | |
| R | .080 | .115 | 2.04 | 2.92 | |
| S | .045 | .055 | 1.14 | 1.39 | |
| T | .230 | .270 | 5.84 | 6.86 | |
| U | ----- | .050 | ----- | 1.27 | |
| V | .045 | ----- | 1.15 | ----- | |

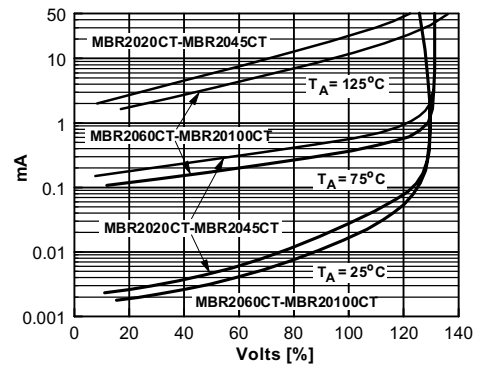
MBR2020CT thru MBR20100CT

Figure 1
Typical Forward Characteristics



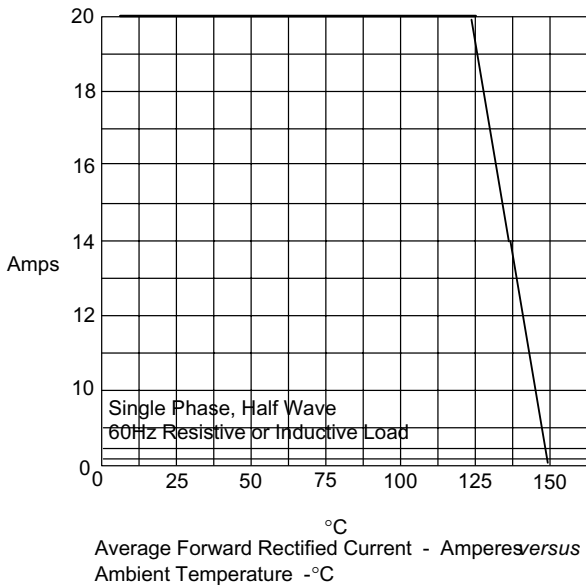
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
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Typical Reverse Characteristics



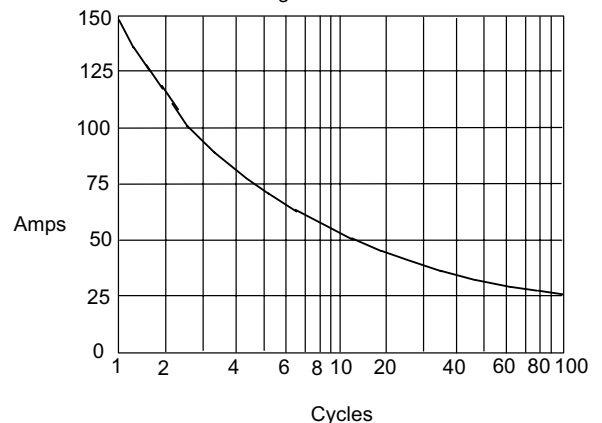
Instantaneous Reverse Leakage Current - mA
Percent Of Rated Peak Reverse Voltage - Volts%

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



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



Micro Commercial Components

Ordering Information

| | |
|------------------|----------------|
| Device | Packing |
| (Part Number)-BP | Bulk;1Kpcs/Box |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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