

M·C·C·

Micro Commercial Components



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MBRB10200CT**Features**

- Halogen free available upon request by adding suffix "-HF"
- Metal of Silicon Rectifier, Majority Carrier Conduction
- Low Leakage Current
- High Current Capability, High Efficiency
- High Junction Temperature Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

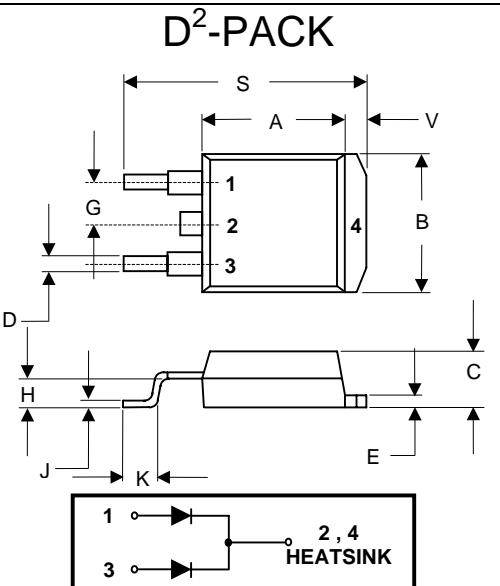
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBRB10200CT | MBRB10200CT | 200V | 140V | 200V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

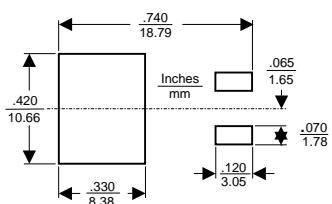
| | | | |
|---|-------------|---------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 10 A | $T_J = 125^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 150A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.98V 0.78V | $I_{FM} = 5.0\text{A}; T_J = 25^\circ\text{C}$ $I_{FM} = 5.0\text{A}; T_J = 125^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 50 μA 7.0mA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |

*Pulse test: Pulse width 380 μsec , Duty cycle 2%

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



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .320 | .359 | 8.13 | 9.14 | |
| B | .380 | .411 | 9.65 | 10.45 | |
| C | .160 | .190 | 4.06 | 4.83 | |
| D | .020 | .035 | 0.51 | 0.89 | |
| E | .045 | .055 | 1.14 | 1.40 | |
| G | .095 | .105 | 2.41 | 2.67 | |
| H | .096 | .120 | 2.43 | 3.03 | |
| J | .014 | .021 | 0.35 | 0.53 | |
| K | .090 | .110 | 2.29 | 2.79 | |
| S | .575 | .625 | 14.60 | 15.80 | |
| V | .045 | .055 | 1.14 | 1.40 | |

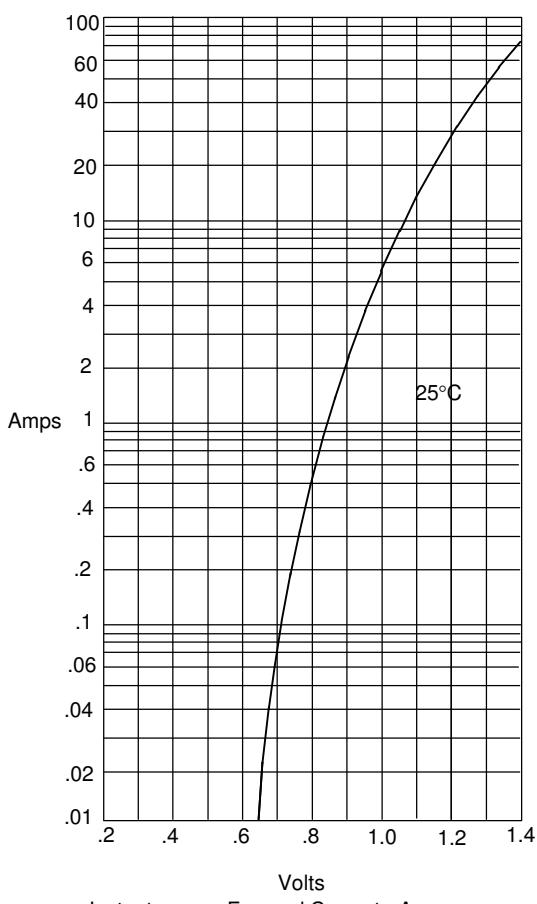
SUGGESTED SOLDER PAD LAYOUT

MBRB10200CT

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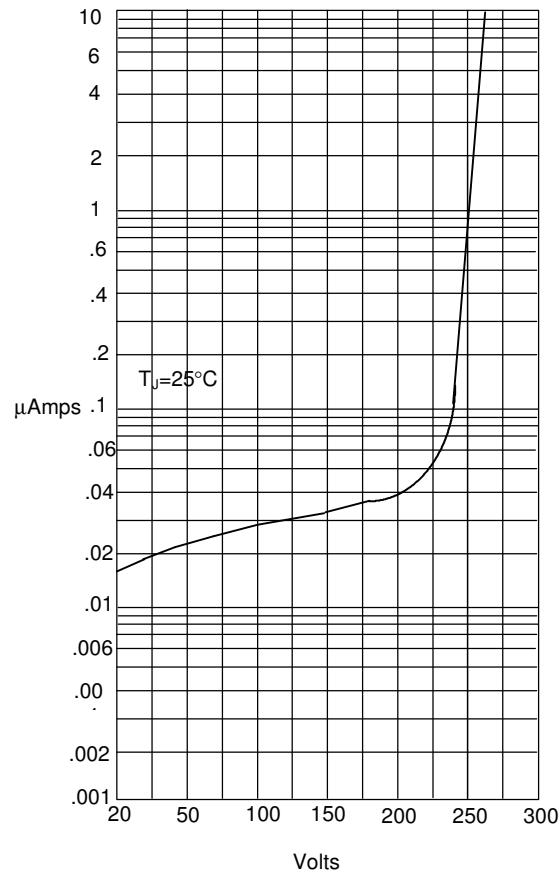
TM

Figure 1
Typical Forward Characteristics



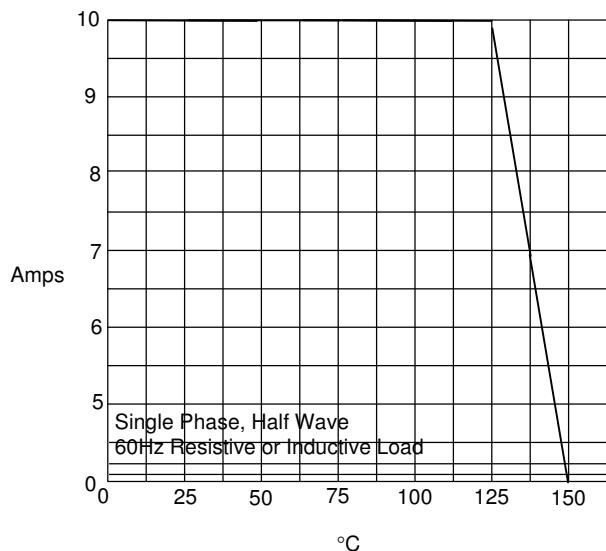
Instantaneous Forward Current - Amperesversus
Instantaneous Forward Voltage - Volts

Figure 2
Micro Commercial Components
Typical Reverse Characteristics



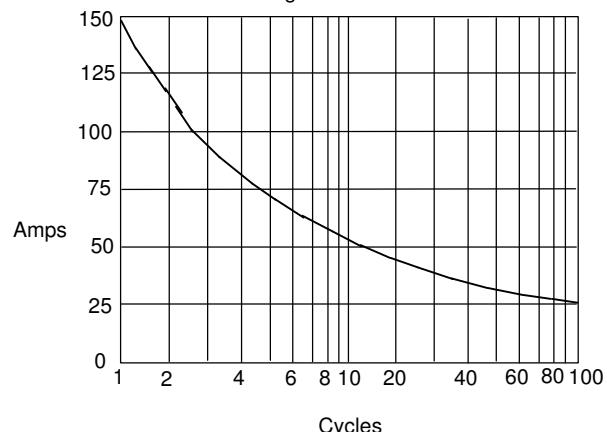
Instantaneous Reverse Leakage Current - MicroAmperesversus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperesversus
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperesversus
Number Of Cycles At 60Hz - Cycles

Ordering Information :

| Device | Packing |
|----------------|-------------------|
| Part Number-BP | Tube : 1 Kpcs/Box |

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

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