

# MBRB10200CT

Rev.G Dec.-2017

## / Descriptions

TO-263

Schottky Diode in a TO-263 Plastic Package.

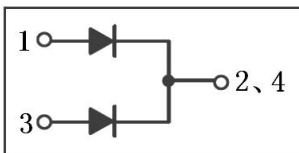
## / Features

Low power loss, high efficiency.

## / Applications

For use in low voltage,high frequency inverters, free wheeling, and polarity protection applications.

## / Equivalent Circuit



## / Pinning



PIN1 Anode

PIN 2 4 Cathode

PIN 3 Anode

## / $h_{FE}$ Classifications & Marking

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                                                                             | Symbol                             | Rating  | Unit |
|---------------------------------------------------------------------------------------|------------------------------------|---------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Reverse Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{RM}$ | 200     | V    |
| DC Blocking Voltage                                                                   | $V_{R(RMS)}$                       | 140     | V    |
| Average forward rectified Current                                                     | $I_{F(AV)}$                        | 2×5     | A    |
| Non Repetitive Peak Surge Current                                                     | $I_{FSM}$                          | 120     | A    |
| Junction Temperature Range                                                            | $T_{J\ MAX}$                       | 150     | °C   |
| Storage Temperature Range                                                             | $T_{stg}$                          | -65 150 | °C   |

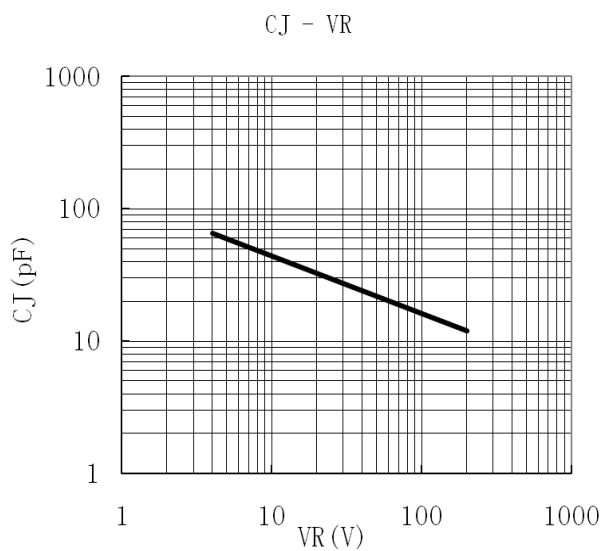
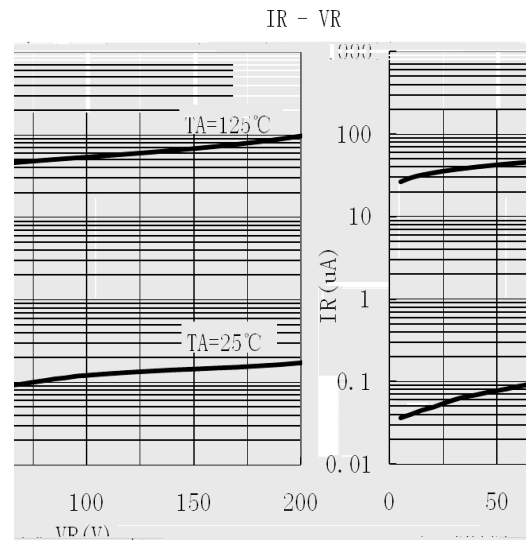
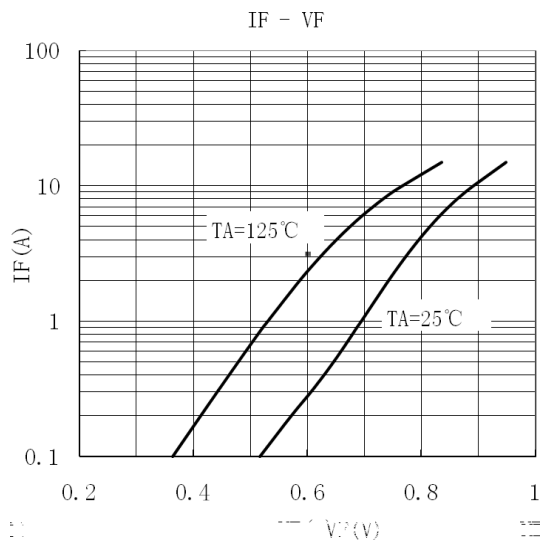
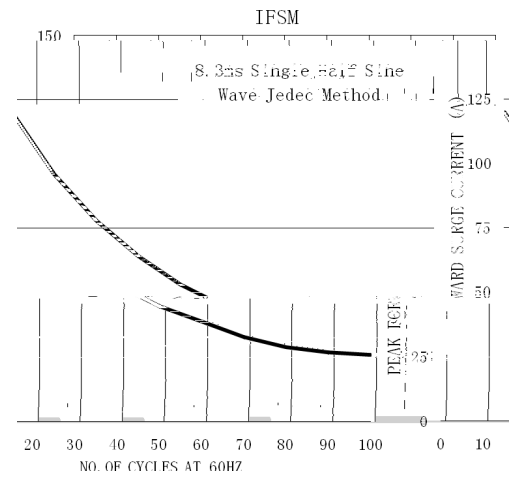
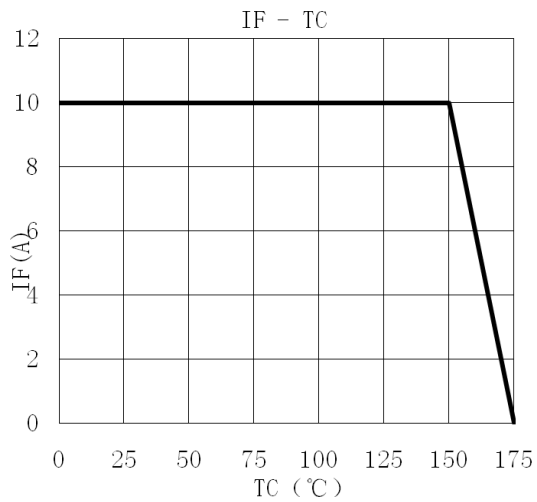
**/ Electrical Characteristics(Ta=25 )**

| Parameter                     | Symbol          | Test Conditions               | Min | Typ  | Max  | Unit |
|-------------------------------|-----------------|-------------------------------|-----|------|------|------|
| Reverse Voltage               | $V_{(BR)R}$     | $I_R=0.3mA$                   | 200 |      |      | V    |
| Peak Forward Voltage          | $V_{FM}$        | $I_F=5.0A$ $T_J=25^{\circ}C$  |     | 0.80 | 0.85 | V    |
|                               |                 | $I_F=5.0A$ $T_J=125^{\circ}C$ |     | 0.68 | 0.75 | V    |
|                               |                 | $I_F=10A$ $T_J=25^{\circ}C$   |     | 0.88 | 0.95 | V    |
|                               |                 | $I_F=10A$ $T_J=125^{\circ}C$  |     | 0.77 | 0.85 | V    |
| Instantaneous Reverse Current | $I_R$<br>Note 1 | $V_R=200V$ $T_J=25$           |     |      | 10   | uA   |
|                               |                 | $V_R=150V$ $T_J=125$          |     |      | 1    | mA   |
|                               |                 | $V_R=200V$ $T_J=125$          |     |      | 5    | mA   |

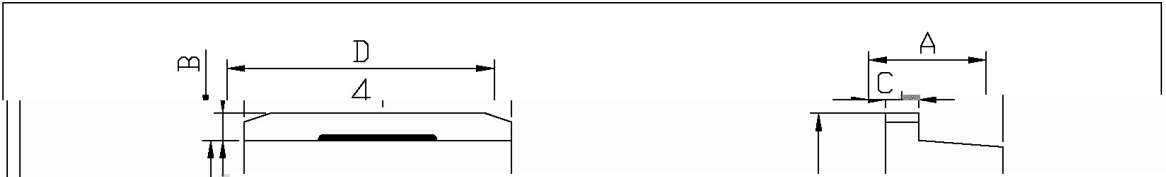
/Notes

1. /Short duration pulse test used to minimize self-heating effect.
2. / Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve



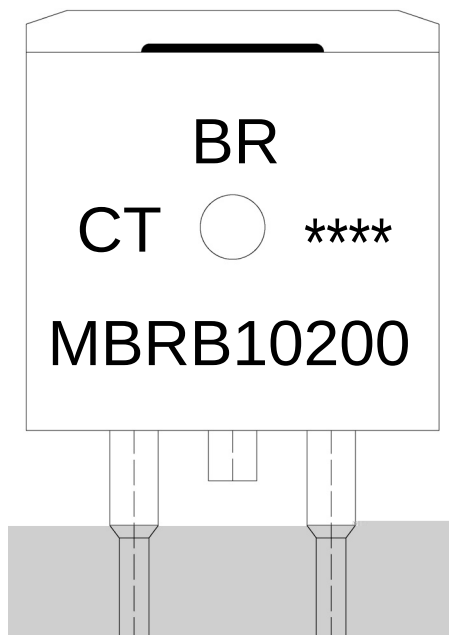
/ Package Dimensions



单位: mm

| Symbol |  | Dimensions in Millimeters |       | Symbol |  | Dimensions in Millimeters |       |
|--------|--|---------------------------|-------|--------|--|---------------------------|-------|
|        |  | Min                       | Max   |        |  | Min                       | Max   |
| A      |  | 4.30                      | 4.70  | E      |  | 9.00                      | 9.40  |
| B      |  | 1.00                      | 1.40  | e1     |  | 2.34                      | 2.74  |
| b1     |  | 0.70                      | 0.90  | e2     |  | 4.88                      | 5.28  |
| b2     |  | 1.15                      | 1.35  | L1     |  | 15.00                     | 16.00 |
| C      |  | 0.40                      | 0.60  | L2     |  | 2.24                      | 2.74  |
| D      |  | 1.20                      | 1.40  | L3     |  | 1.20                      | 1.40  |
|        |  | 9.80                      | 10.20 |        |  |                           |       |

## / Marking Instructions



BR

MBRB10200

CT:

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Note:

BR:

Company Code

MBRB10200

Product Type.

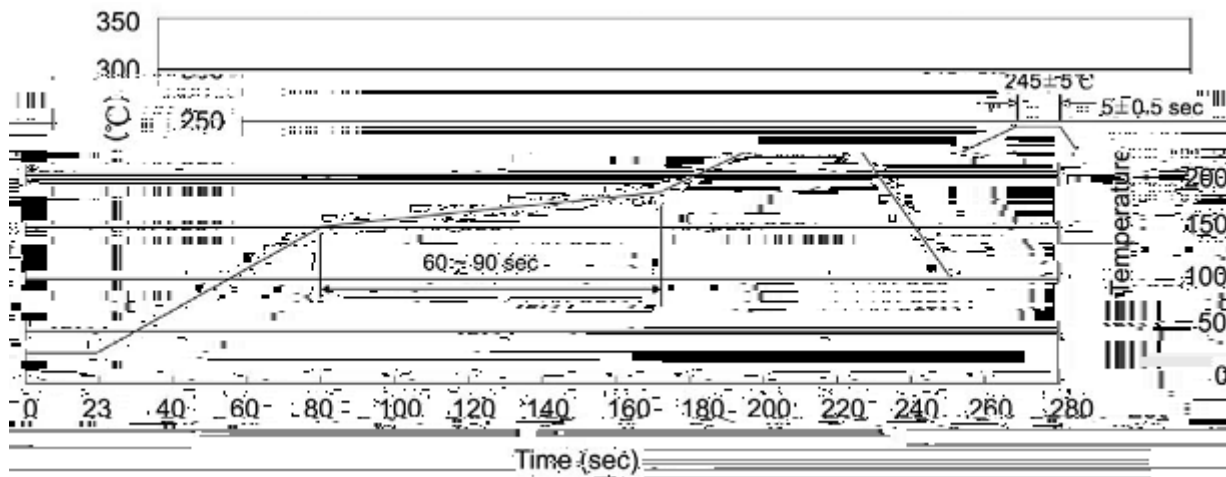
CT:

Internal Structure

\*\*\*\*:

Lot No. Code, code change with Lot No.

( ) /



Note:

- |   |       |     |           |        |                                         |
|---|-------|-----|-----------|--------|-----------------------------------------|
| 1 | 25    | 150 | 60        | 90sec; | 1.Preheating:25~150 , Time:60~90sec.    |
| 2 | 245±5 |     | 5±0.5sec; |        | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 |       | 2   | 10        | /sec.  | 3. Cooling Speed: 2~10 /sec.            |

### / Resistance to Soldering Heat Test Conditions

260±5      10±1 sec.      Temp.:260±5℃      Time:10±1 sec

### / Packaging SPEC.

/ REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| TO-263               | 800                | 1                       | 800                    | 6                            | 48,000                 | 13 ×24                                  | 360×360×50  | 385×335×366 |

/ TUBE

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-263               | 50                 | 20                      | 1,000                  | 5                            | 5,000                  | 532×33×7.0                              | 555×164×50  | 575×290×180 |

### / Notices