

/ Revised record

|  |  |  | 385×257×392      380×335×366 |  |  |
|--|--|--|------------------------------|--|--|
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|  |  |  |                              |  |  |

**/ Descriptions**

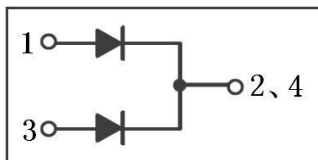
Schottky Diode in a TO-263 Plastic Package.

**/ Features**

Low power loss, high efficiency. HF product.

**/ 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<sub>FE</sub> Classifications & Marking**

See Marking Instructions.

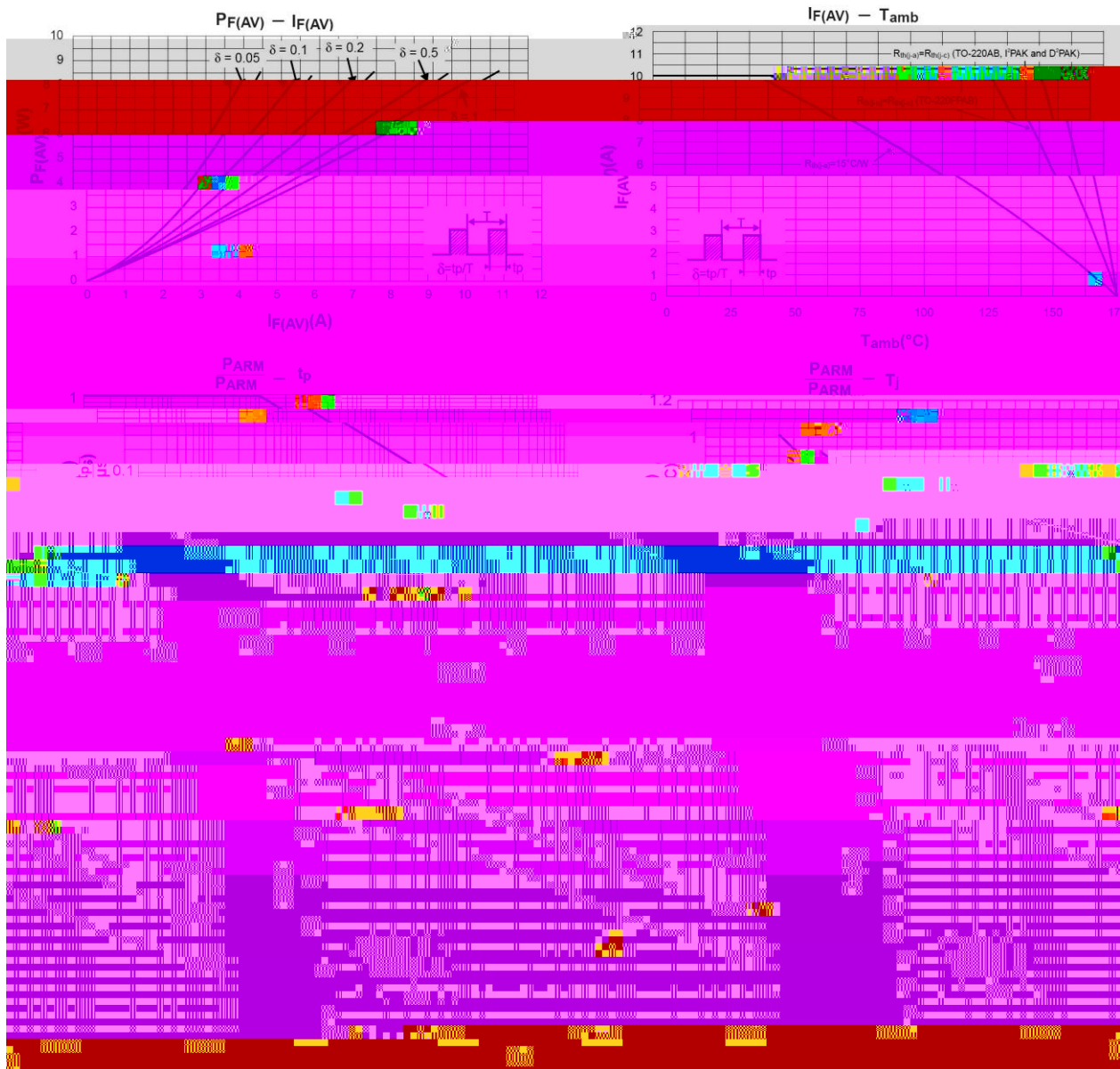
/ Absolute Maximum Ratings(Ta=25 )

| Parameter                                 | Symbol                    | Rating  | Unit |
|-------------------------------------------|---------------------------|---------|------|
| Peak Repetitive Reverse Voltage           | $V_{RRM}$                 | 150     | V    |
| RMS Forward Current                       | $I_{F(RMS)}$              | 30      | A    |
| Average Rectified Forward Current         | $I_{F(AV)}$               | 10      | A    |
|                                           | $I_{F(AV) \text{ total}}$ | 20      | A    |
| Non-Repetitive Peak Forward Surge Current | $I_{FSM}$                 | 180     | A    |
| Thermal Resistance Junction to Case       | R                         | 2.2     | /W   |
| Junction Temperature Range                | $T_j$                     | 150     |      |
| Storage Temperature Range                 | $T_{stg}$                 | -55 150 |      |

/ Electrical Characteristics(Ta=25 )

| Parameter                     | Symbol | Test Conditions     | Min | Typ  | Max   | Unit |
|-------------------------------|--------|---------------------|-----|------|-------|------|
| Forward Voltage               | $V_F$  | $I_F=10A(T_C=25)$   |     |      | 0.92  | V    |
|                               |        | $I_F=10A(T_C=125)$  |     | 0.69 | 0.75  | V    |
|                               |        | $I_F=20A(T_C=25)$   |     |      | 1.0   | V    |
|                               |        | $I_F=20A(T_C=125)$  |     | 0.79 | 0.86  | V    |
| Instantaneous Reverse Current | $I_R$  | $V_R=150V(T_C=25)$  |     |      | 5.0   | uA   |
|                               |        | $V_R=150V(T_C=125)$ |     |      | 5.0   | mA   |
| Voltage Rate of Change        | dv/dt  |                     |     |      | 10000 |      |

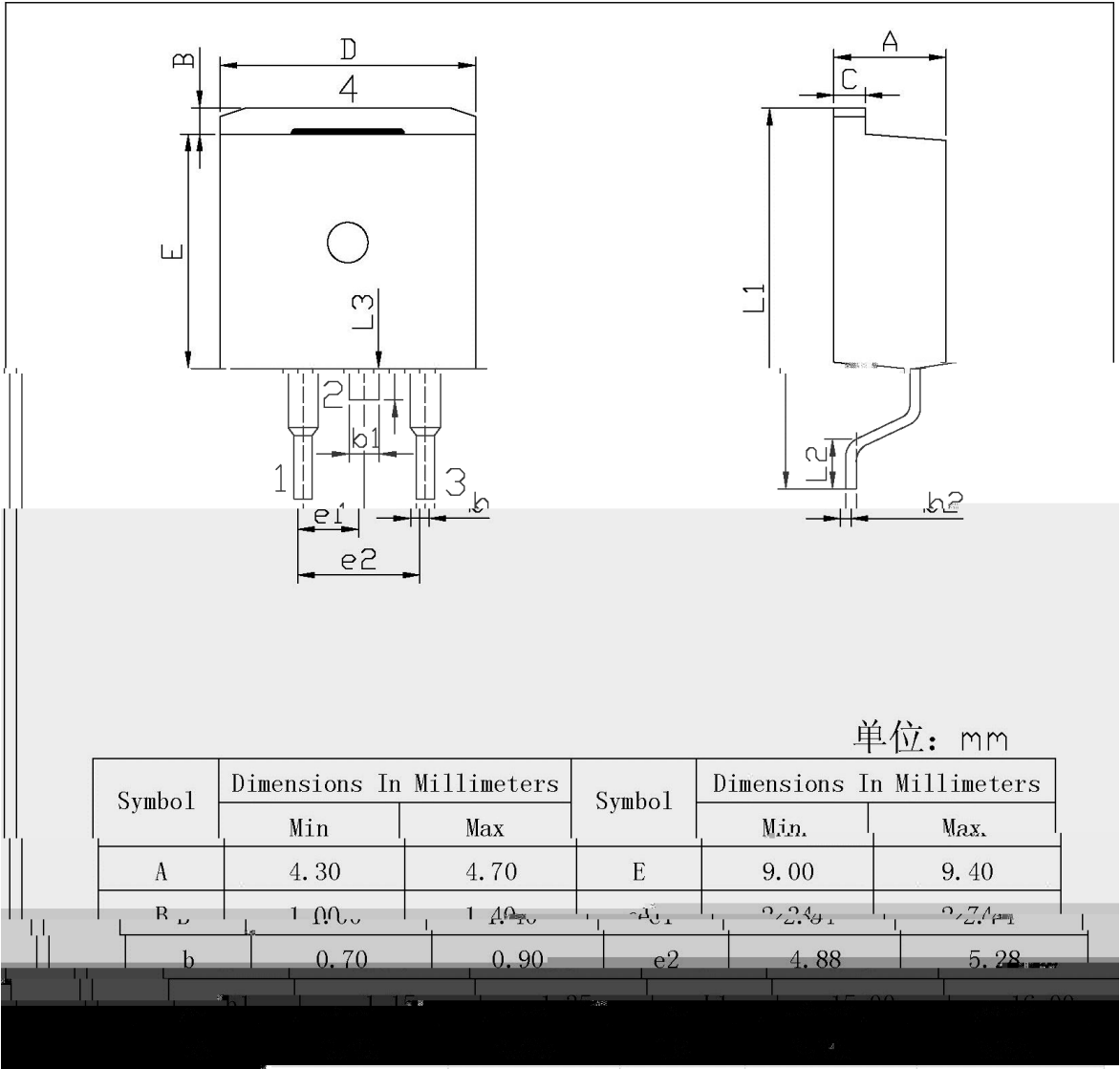
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



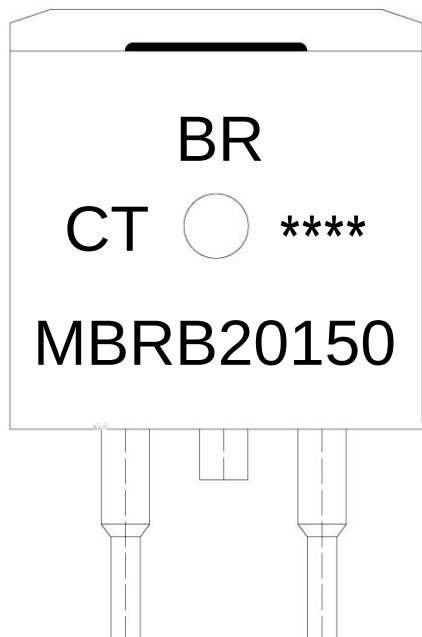
/ Package Dimensions



|   |      |       |    |      |      |
|---|------|-------|----|------|------|
| C | 1.20 | 1.40  | L3 | 1.20 | 1.60 |
| D | 9.80 | 10.20 |    |      |      |

TU-263

## / Marking Instructions



Note:

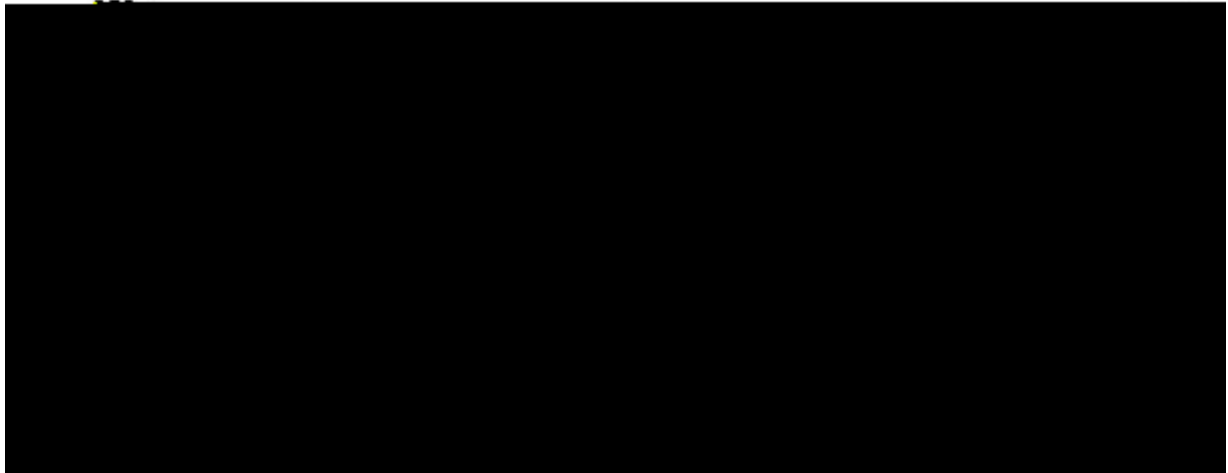
BR: Company Code

MBRB20150 Product Type.

CT: Internal Structure

\*\*\*\*: Lot No. Code, code change with Lot No.

## ( ) / Temperature Profile for Dip Soldering(Pb-Free)



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 | Units           |                      |                      |                            |                      | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|-----------------|----------------------|----------------------|----------------------------|----------------------|-----------------------------------|------------|-------------|
|              | Units/Reel<br>/ | Reels/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Reel                              | Inner Box  | Outer Box   |
| TO-263       | 800             | 1                    | 800                  | 6                          | 4,800                | 13 ×24                            | 360×360×50 | 380×335×366 |

## / TUBE

| Package Type | Units           |                      |                      |                            |                      | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|-----------------|----------------------|----------------------|----------------------------|----------------------|-----------------------------------|------------|-------------|
|              | Units/Tube<br>/ | Tubes/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Tube                              | Inner Box  | Outer Box   |
| TO-263       | 50              | 20                   | 1,000                | 5                          | 5,000                | 532×33×7.0                        | 555×164×50 | 575×290×180 |

## / Notices