

## / Descriptions

Schottky Diode in a TO-252 Plastic Package.

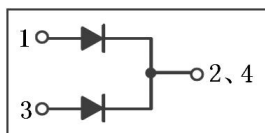
## / Features

Low power loss, high efficiency, HF Product.

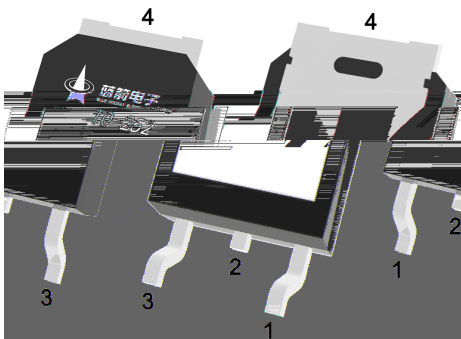
## / Applications

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

## / Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25 )

| Parameter                                                                              | Symbol                             | Rating       | Unit |
|----------------------------------------------------------------------------------------|------------------------------------|--------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{RM}$ | 100          | V    |
| RMS Reverse Voltage                                                                    | $V_{R(RMS)}$                       | 70           | V    |
| Average Rectified Forward Current                                                      | $I_{F(AV)}$                        | $2 \times 5$ | A    |
| Non Repetitive Peak Surge Current                                                      | $I_{FSM}$                          | 125          | A    |
| Thermal resistance, junction to case                                                   | $R_{\theta Jc}$                    | 6.5          | /W   |
| Junction Temperature Range                                                             | $T_{j\ MAX}$                       | 150          |      |
| Storage Temperature Range                                                              | $T_{stg}$                          | -55 150      |      |

/ Electrical Characteristics(Ta=25 )

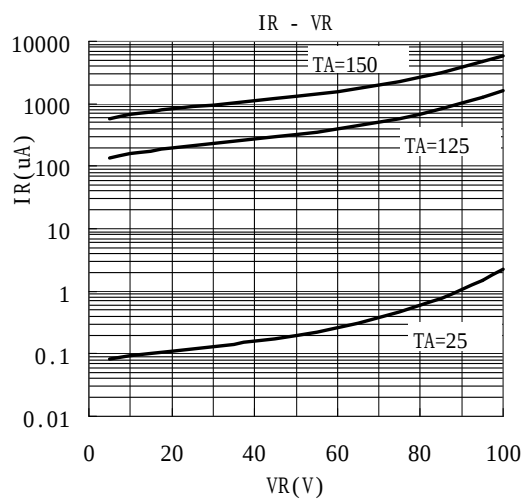
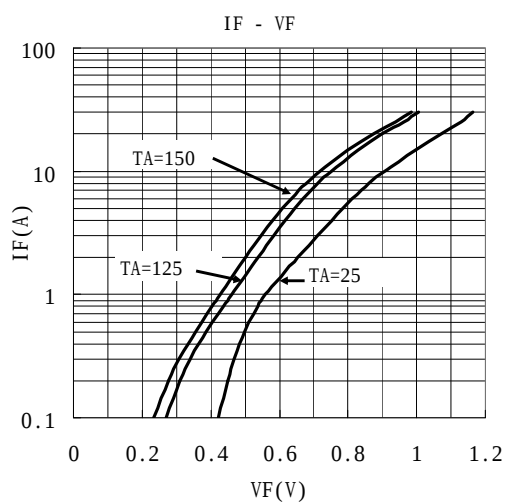
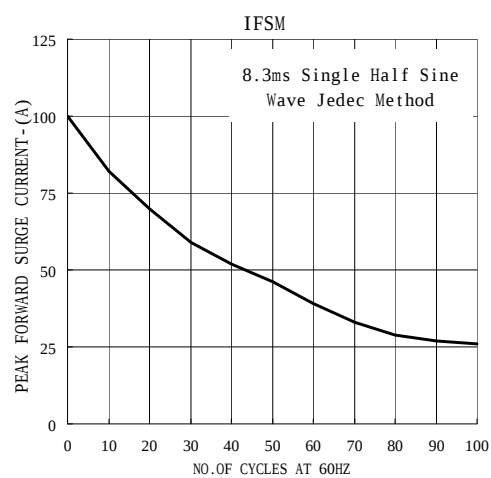
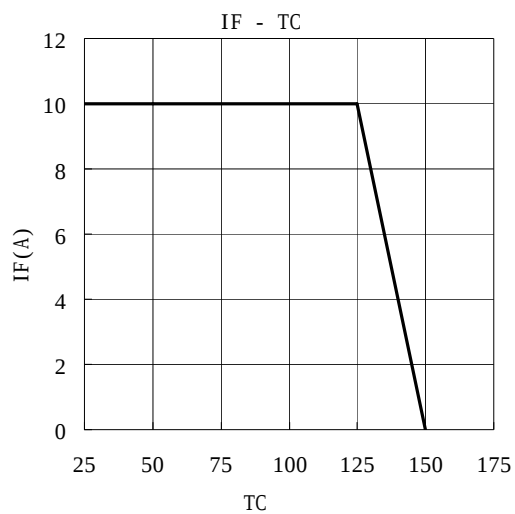
| Parameter                     | Symbol          | Test Conditions      | Min | Typ | Max  | Unit    |
|-------------------------------|-----------------|----------------------|-----|-----|------|---------|
| Reverse Voltage               | $V_{BR}$        | $I_R=0.3mA$          | 100 |     |      | V       |
| Forward Voltage               | $V_F$           | $I_F=5A$ $T_J=25$    |     |     | 0.85 | V       |
|                               |                 | $I_F=5A$ $T_J=125$   |     |     | 0.75 | V       |
|                               |                 | $I_F=10A$ $T_J=25$   |     |     | 0.95 | V       |
|                               |                 | $I_F=10A$ $T_J=125$  |     |     | 0.85 | V       |
| Instantaneous Reverse Current | $I_R$<br>Note 1 | $V_R=100V$ $T_J=25$  |     |     | 10   | $\mu A$ |
|                               |                 | $V_R=70V$ $T_J=125$  |     |     | 1.0  | mA      |
|                               |                 | $V_R=100V$ $T_J=125$ |     |     | 5.0  | mA      |

/Notes

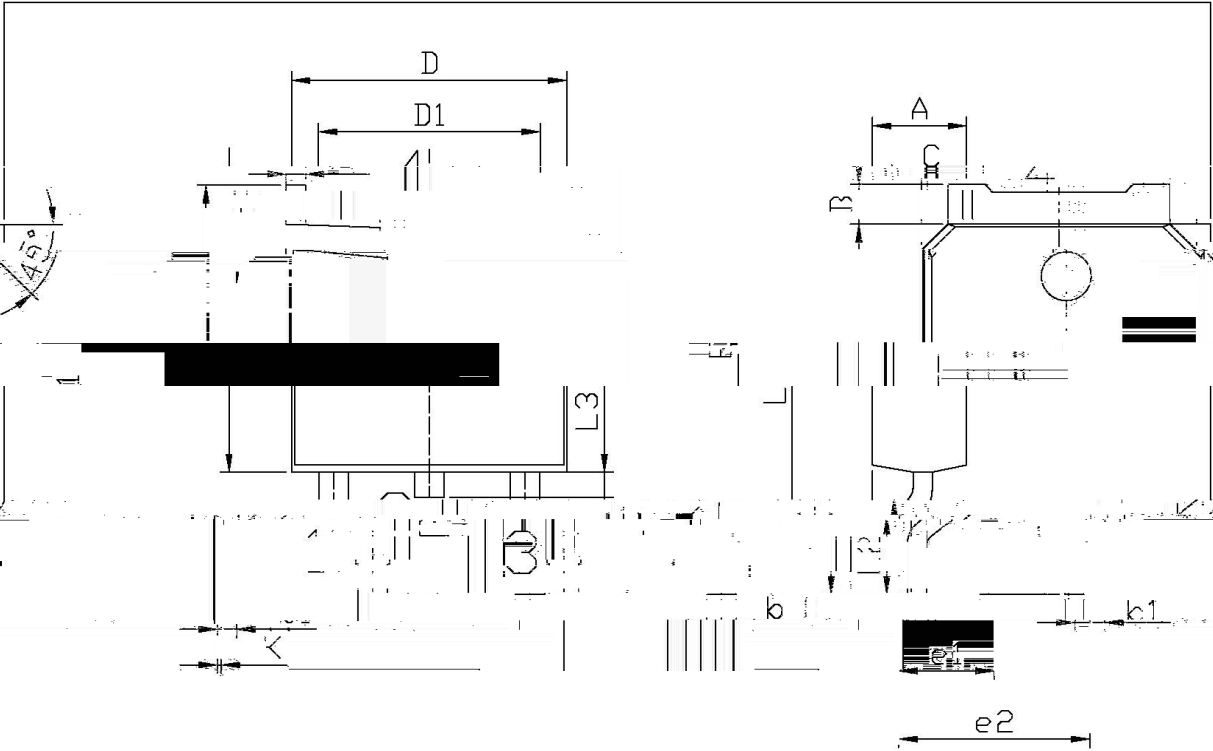
/Short duration pulse test used to minimize self-heating effect.

/ Unless otherwise noted, values for the parameters of a single chip

## / Electrical Characteristic Curve



/ Package Dimensions



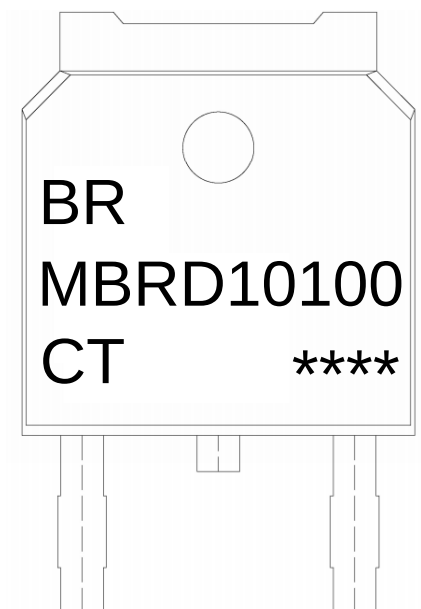
单位: mm

| Symbol | Dimensions In Millimeters |      | Symbol | Dimensions In Millimeters |       |
|--------|---------------------------|------|--------|---------------------------|-------|
|        | Min                       | Max  |        | Min                       | Max   |
| A      | 2.25                      | 2.40 | B      | 5.05                      | 5.10  |
| C      | 0.25                      | 0.30 | D      | 2.24                      | 2.34  |
| L3     | 0.55                      | 0.60 | L1     | 9.85                      | 10.35 |
| b      | 0.45                      | 0.55 | b1     | 0.45                      | 0.50  |
| e1     | 0.60                      | 0.90 | e2     | 6.45                      | 6.50  |
| K      | 0.00                      | 0.10 | D1     | 5.10                      | 5.15  |

T0-252



## / Marking Instructions



Note:

BR:

Company Code

MBRD10100

Product Type Code

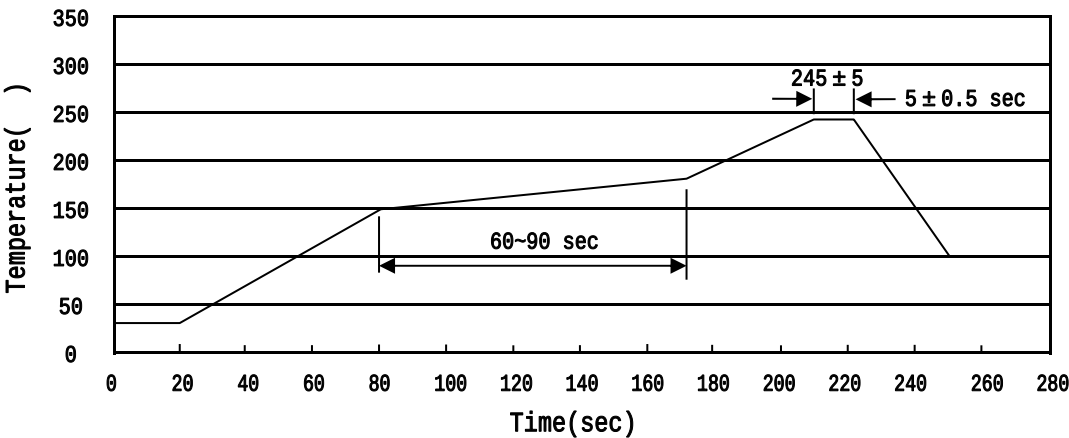
CT:

Internal Structure

\*\*\*\*:

Lot No. Code, code change with Lot No.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , 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> ) |            |             |
|--------------|-------|---|-------|---|--------|-----------------------------------|------------|-------------|
|              |       |   |       |   |        |                                   |            |             |
| TO-252       | 2,500 | 2 | 5,000 | 6 | 30,000 | 13 ×16                            | 360×360×50 | 380×335×366 |

/ TUBE

| Package Type | Units |    |       |   |        | Dimension (unit mm <sup>3</sup> ) |            |             |
|--------------|-------|----|-------|---|--------|-----------------------------------|------------|-------------|
|              |       |    |       |   |        |                                   |            |             |
| TO-251/252   | 75    | 48 | 3,600 | 5 | 18,000 | 526×20.5×5.25                     | 555×164×50 | 575×290×180 |

/ Notices