

MBR10150CT

Rev.H Oct.-2018

/ Descriptions

Schottky Barrier Diode in a TO-220 Plastic Package.

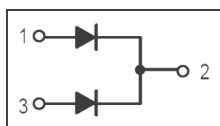
/ Features

Low power loss, high efficiency.

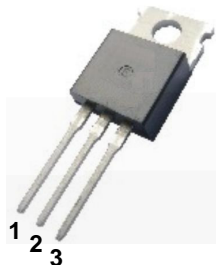
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions.

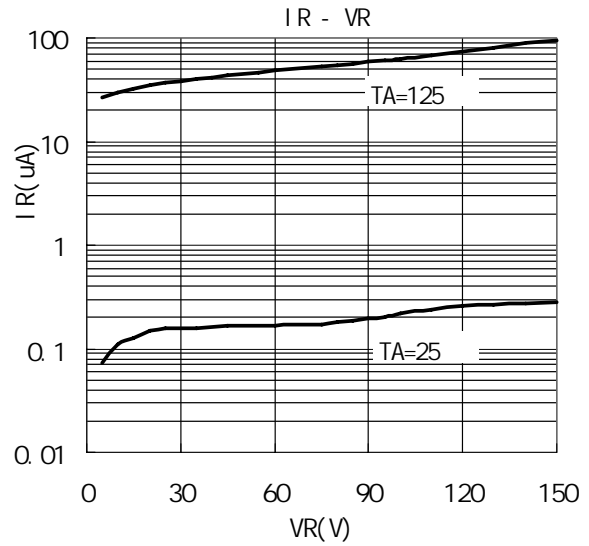
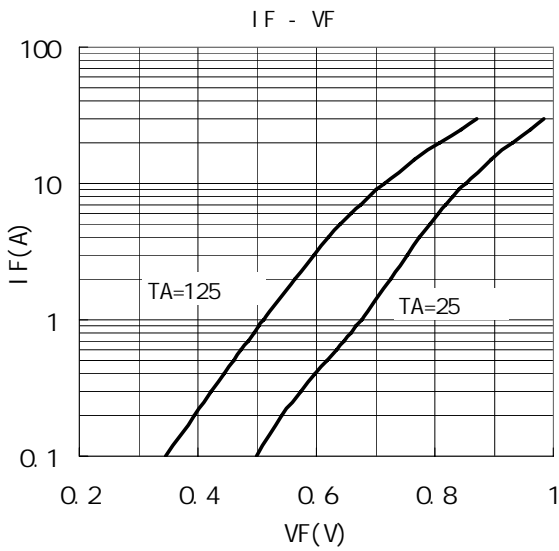
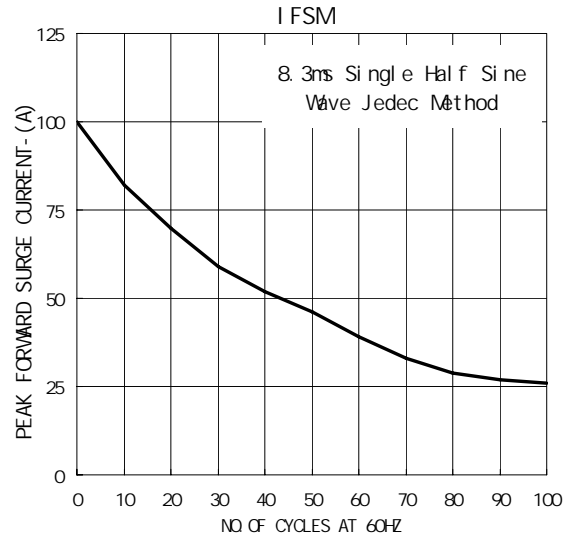
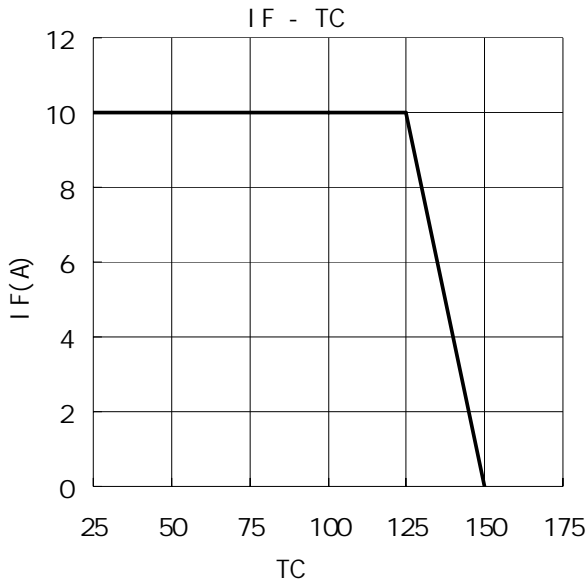
/ Absolute Maximum Ratings(Ta=25)

| Parameter | Symbol | Rating | Unit |
|---|-----------------|---------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 150 | V |
| Peak Repetitive Forward Current | $I_{F(AV)}$ | 10 | A |
| Average Rectified Forward Current | I_{FRM} | 10 | A |
| Non-Repetitive Peak Forward Surge Current | I_{FSM} | 150 | A |
| Repetitive Peak Reverse Surge Current | I_{RRM} | 0.5 | A |
| Thermal Resistance Junction to Case | $R_{\theta JC}$ | 2.5 | /W |
| Junction and Storage Temperature Range | T_j, T_{stg} | -55 150 | |

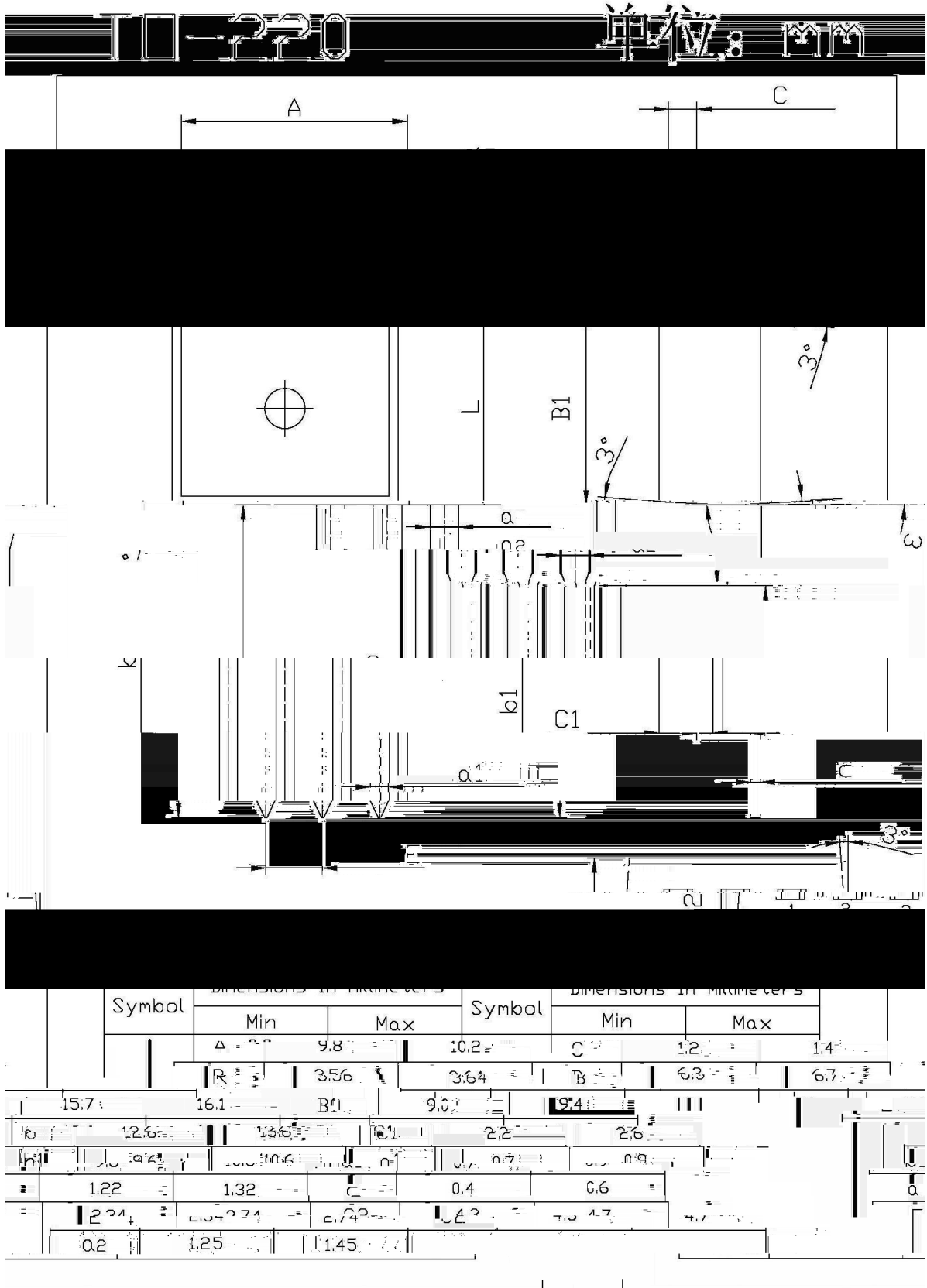
/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|--------|----------------------|-----|-----|-------|------------|
| Reverse Current Voltage | V_R | $I_R=1mA$ | 150 | | | V |
| Forward Voltage | V_F | $I_F=5A$ | | | 0.88 | V |
| | | $I_F=5A(T_c=125)$ | | | 0.78 | V |
| Instantaneous Reverse Current | I_R | $V_R=150V$ | | | 0.15 | mA |
| | | $V_R=150V(T_c=125)$ | | | 150 | mA |
| Voltage Rate of Change | dv/dt | | | | 10000 | V/ μ s |

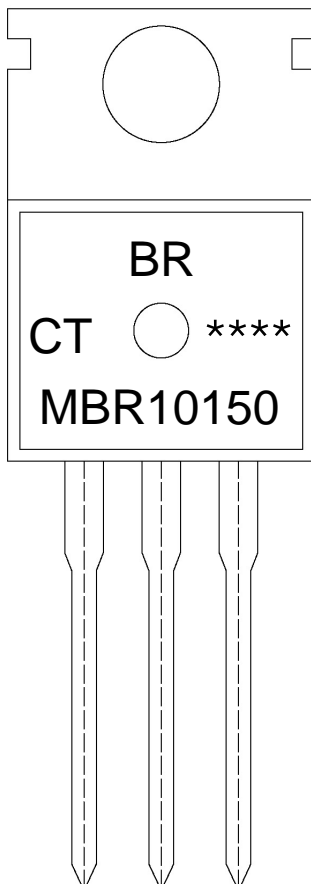
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Note:

BR:

Company Code

MBR10150

Product Type.

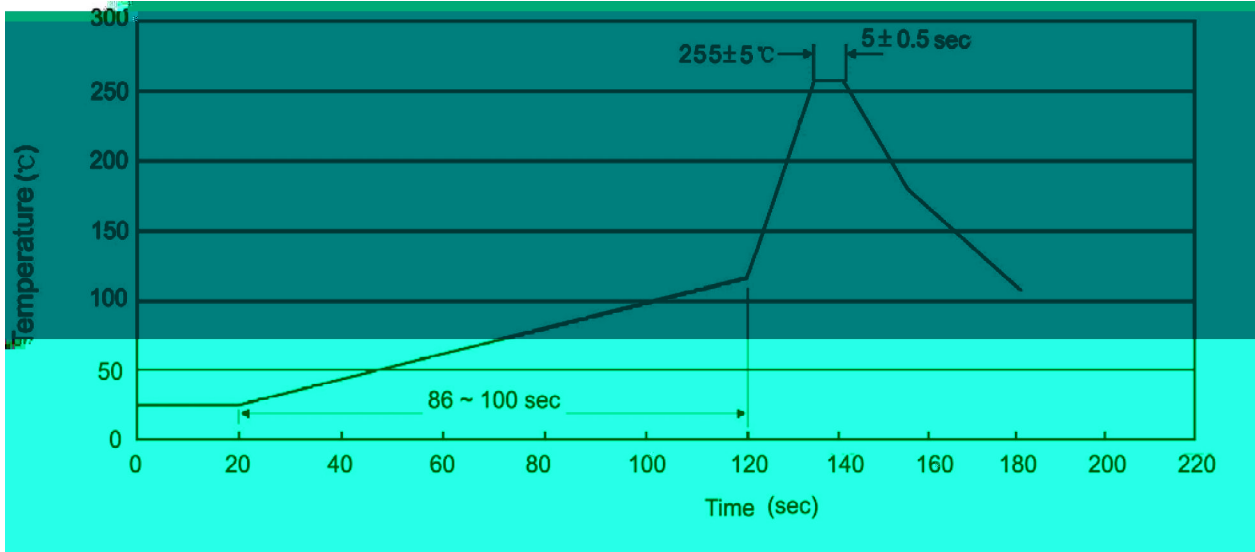
CT:

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 | 255 | 5 | 5 | 0.5sec; | 2.Peak Temp.:255 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Bag 只/袋 | Bags/Inner Box 袋/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Bag 袋 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F | 200 | 10 | 2,000 | 5 | 10,000 | 135×190 | 237×172×102 | 560×245×195 |

/ TUBE

Package Type Units 包装数量 Dimension 包装尺寸 (unit: mm
封装形式