

MBR1045CT

Rev.H Oct.-2018

KF 5)

Schottky Barrier Diode in a TO-220 Plastic Package.

Low power loss, high efficiency.

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



PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

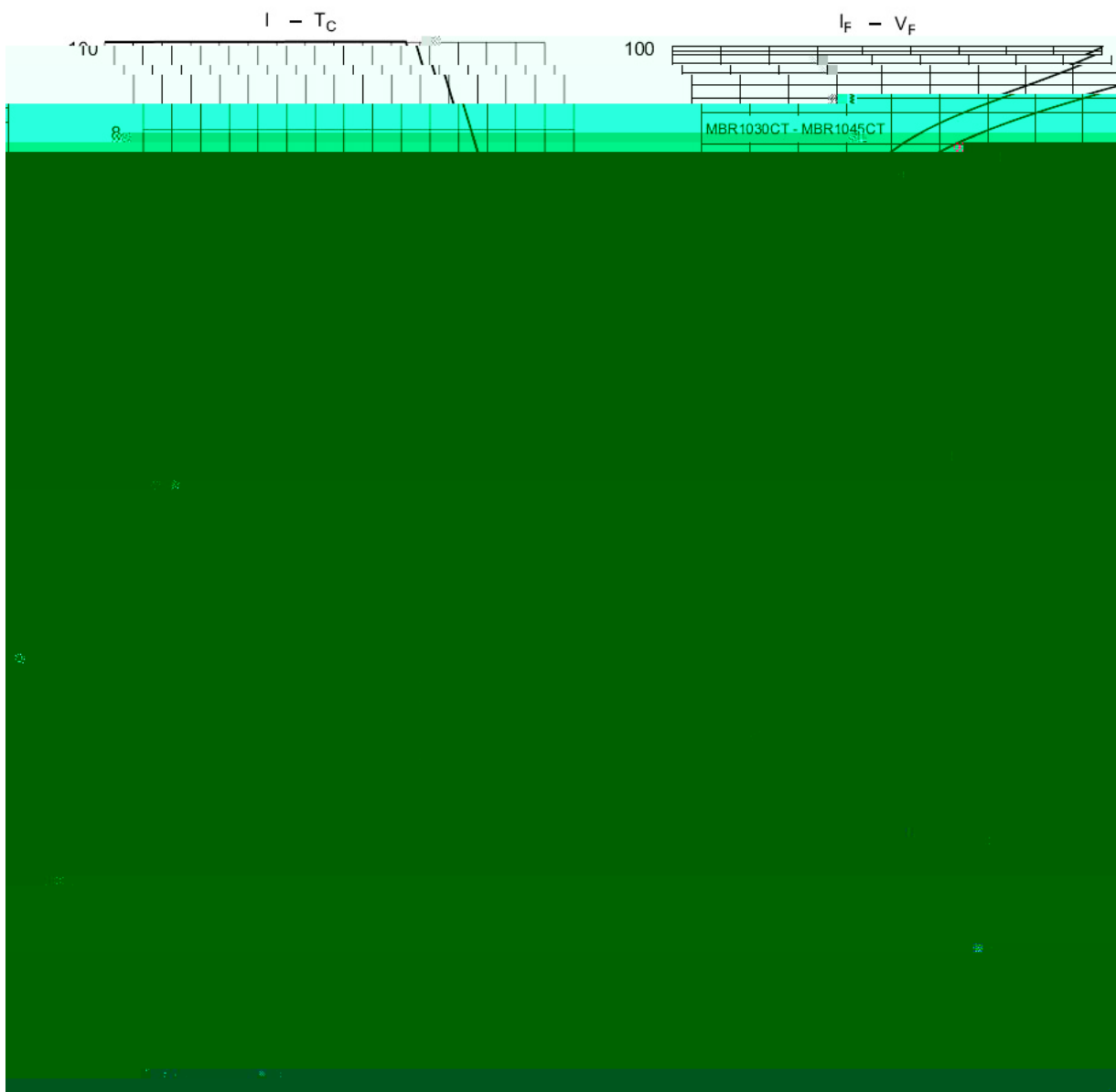
See Marking Instructio

/ Absolute Maximum Ratings(Ta=25

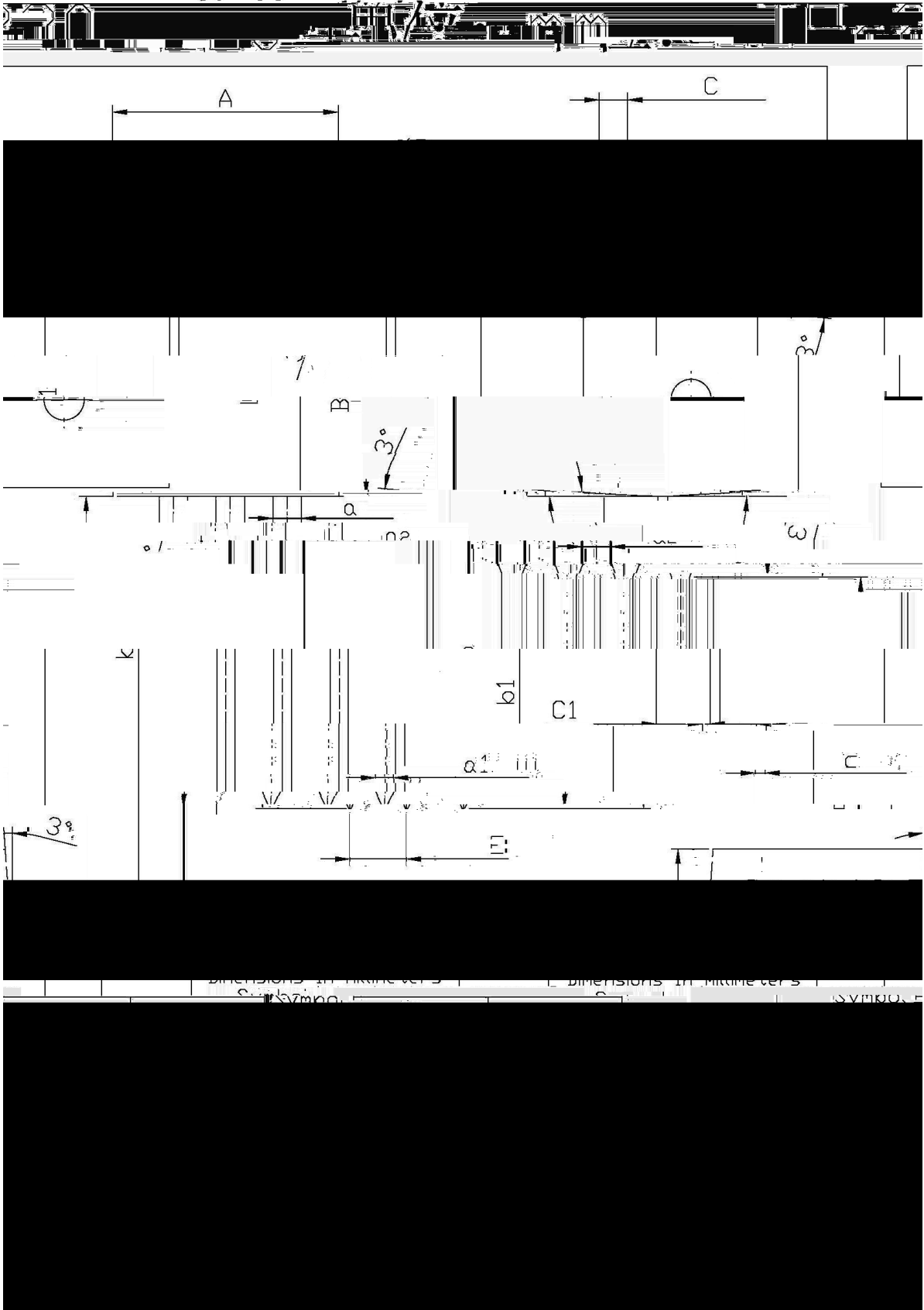
| Parameter | Symbol | Rating | Unit |
|-------------------------------------|-----------|---------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 45 | V |
| Instantaneous Reverse Voltage | V_R | 31.5 | V |
| Average Rectified Output Current | I_O | 10 | A |
| Non Repetitive Peak Surge Current | I_{FSM} | 125 | A |
| Repetitive Peak Reverse Current | I_{RRM} | 1.0 | A |
| Thermal Resistance Junction to Case | R_{JC} | 30 | K/W |
| Storage Temperature Range | T_{STG} | -65 150 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|----------|---------------------------|-----|-----|------|------------|
| Forward Voltage | V_F | $I_F=5A(T_J=125^\circ C)$ | | | 0.57 | V |
| | | $I_F=5A(T_J=25^\circ C)$ | | | 0.70 | V |
| | | $I_F=10A(T_J=25^\circ C)$ | | | 0.84 | V |
| Instantaneous Reverse Current | I_{RM} | $T_C=25$ | | | 0.1 | mA |
| | | $T_C=125$ | | | 15 | mA |
| Junction Capacitance | C_j | | | | 150 | pF |
| Voltage Rate of Change | dv/dt | | | | 1000 | V/ μ s |

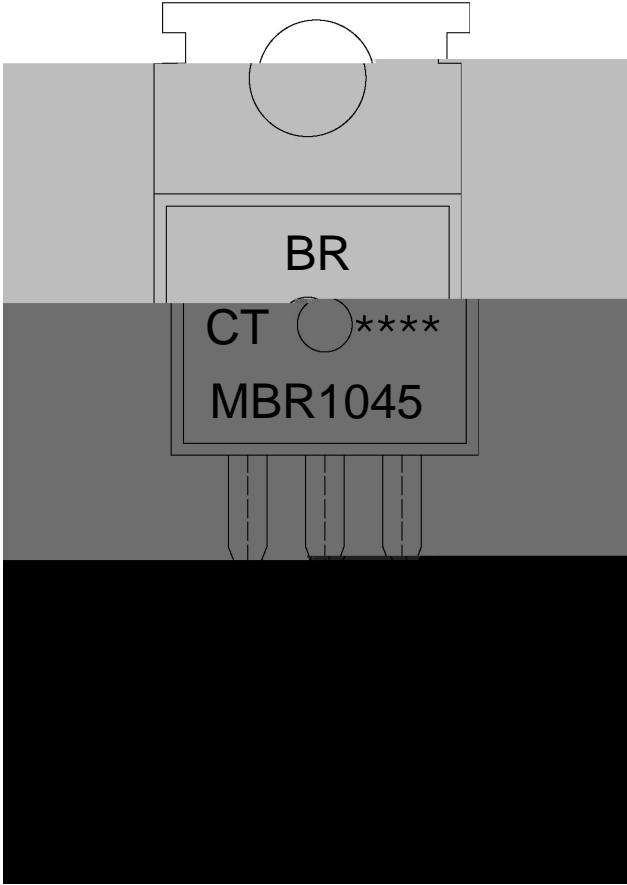
/ Electrical Characteristic Curve



/ Package Dimensions



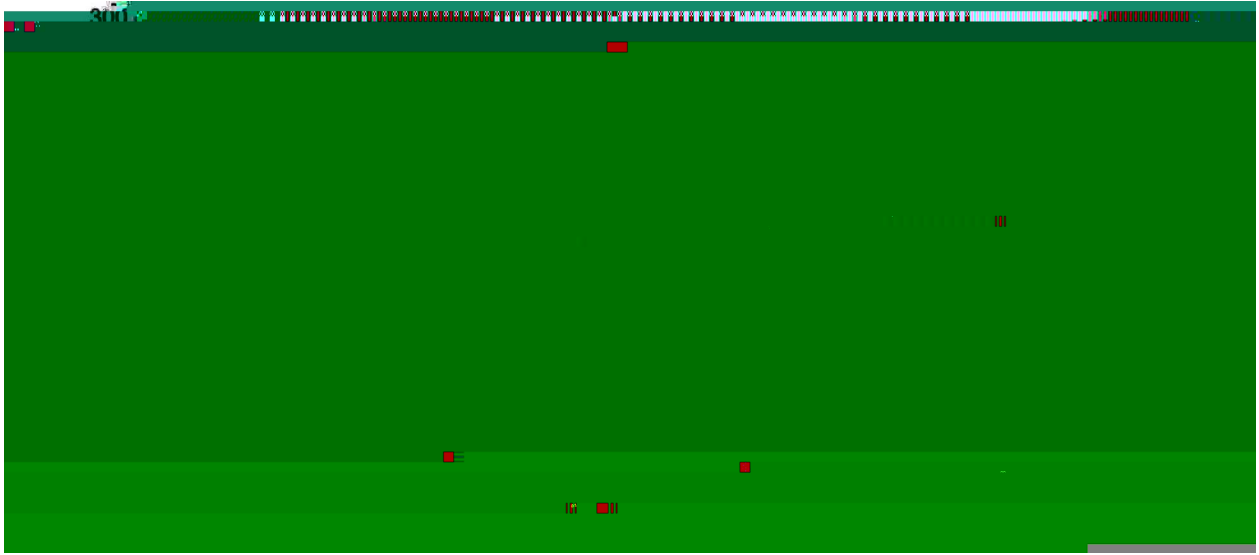
/ Marking Instructions



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: K1
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Note:
BR: Company Code
MBR1045 Product Type.
CT: Internal Structure
****: Lot No. Code, code change with Lot No.

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



- | | | | | | | |
|---|--------|-----|------------|--------|-------|---|
| 1 | 25 | 150 | 60 | 90sec; | Note: | 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 |