

/ Descriptions

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

/ Features

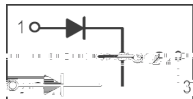
Low power loss, high efficiency.

/ Applications

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

/ Equivalent Circuit



/ Pinning



1
2
3

PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions.

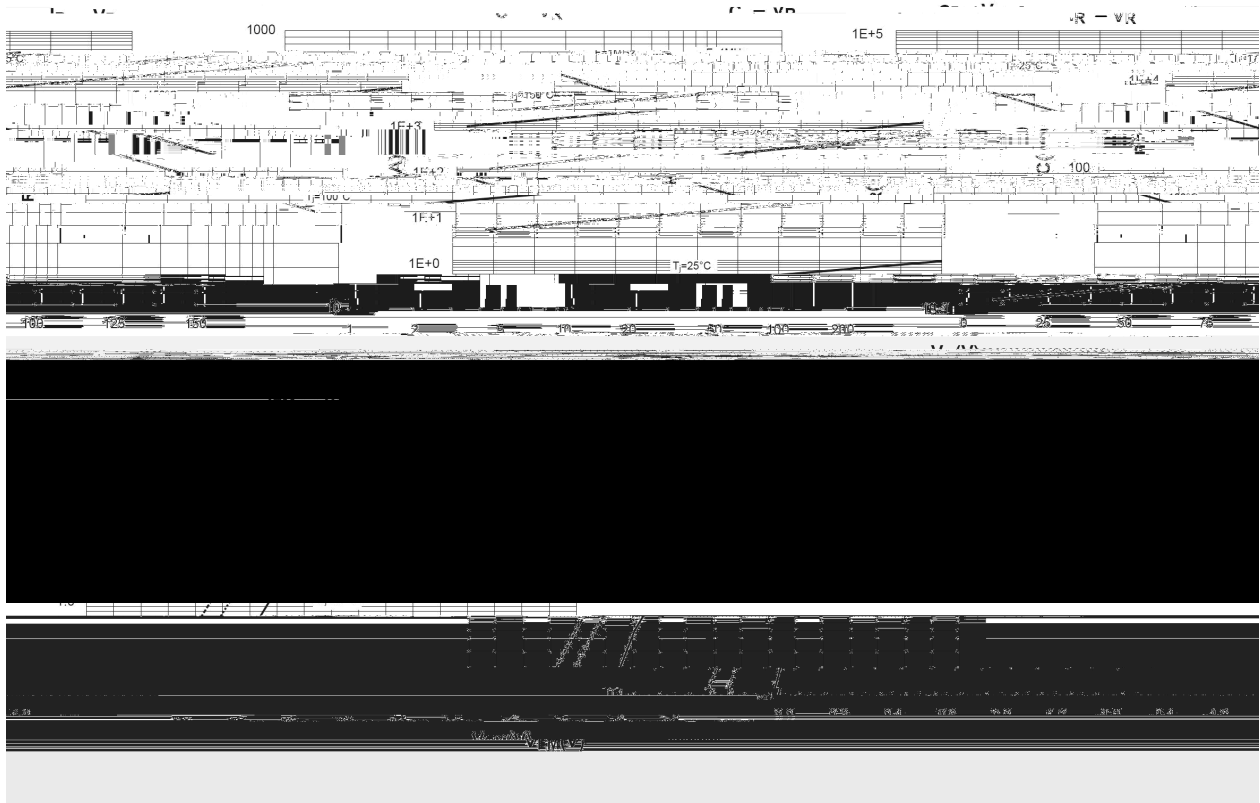
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Average Rectified Forward Current	$I_{F(AV)}$	15	A
	$I_{F(AV) \text{ total}}$	30	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	200	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	2.2	$^{\circ}\text{C/W}$
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

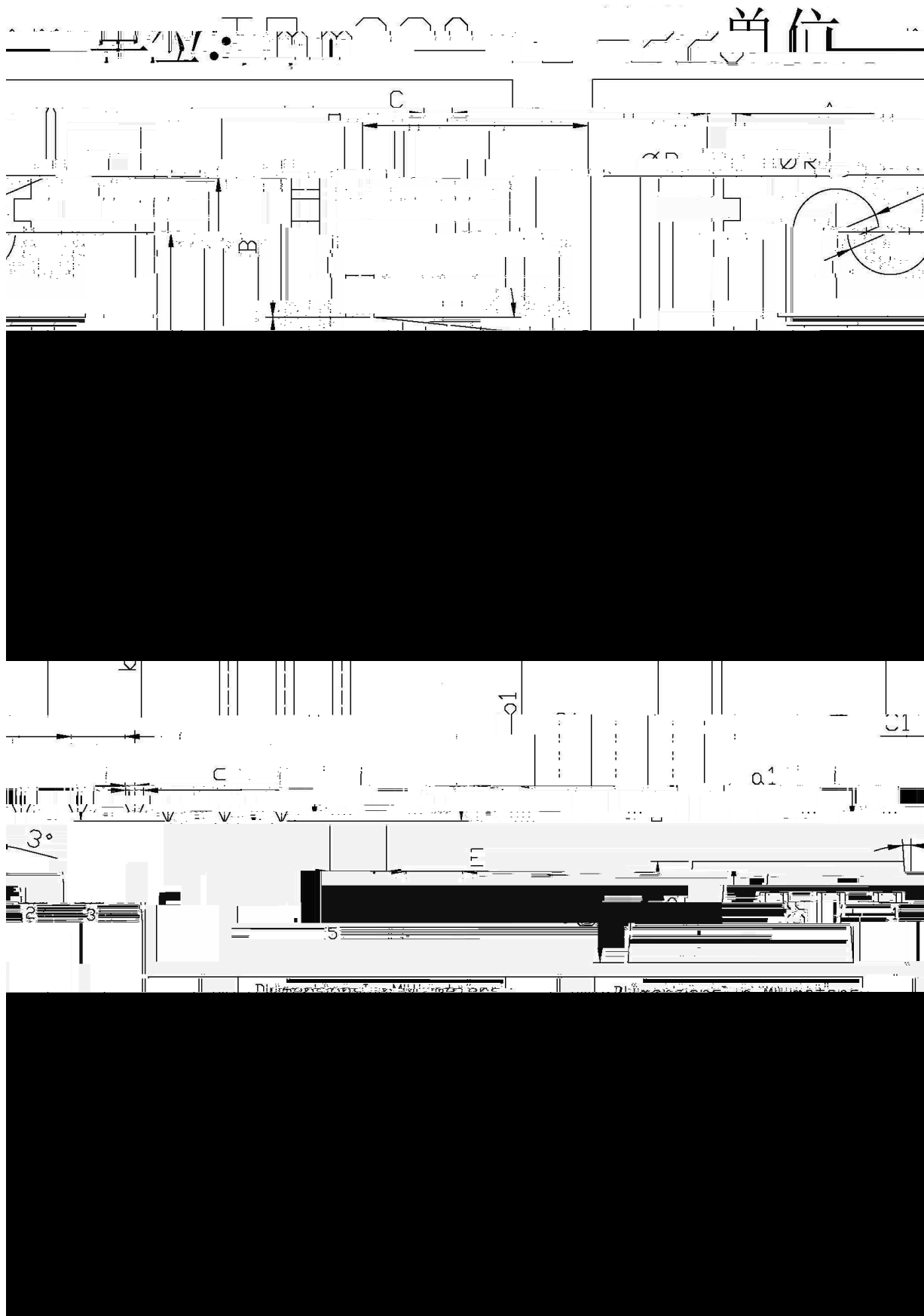
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=15\text{A}(T_C=25^\circ\text{C})$			0.95	V
		$I_F=15\text{A}(T_C=125^\circ\text{C})$			0.92	V
		$I_F=30\text{A}(T_C=25^\circ\text{C})$			1.02	V
		$I_F=30\text{A}(T_C=125^\circ\text{C})$			0.98	V
Instantaneous Reverse Current	I_R	$V_R=150\text{V}(T_C=25^\circ\text{C})$			5.0	μA
		$V_R=150\text{V}(T_C=125^\circ\text{C})$			5.0	mA

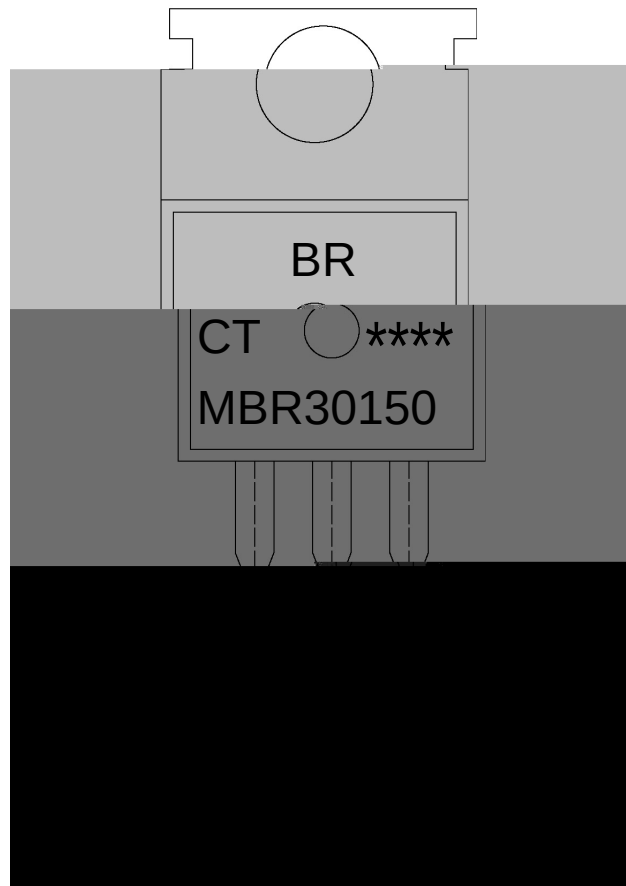
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

MBR30150

CT:

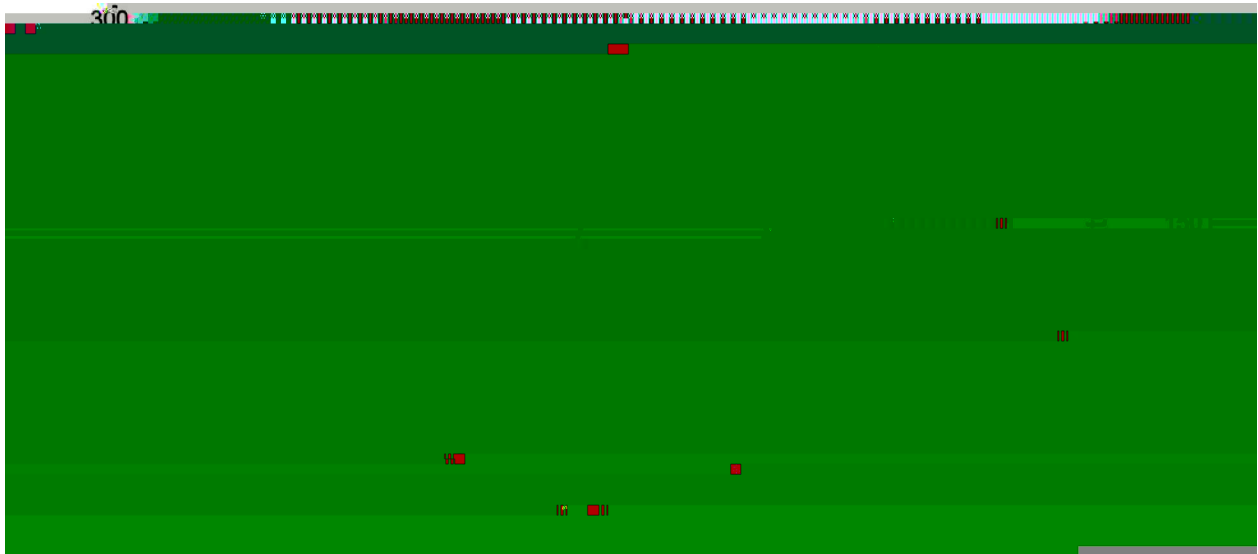
Note:

BR: Company Code

MBR30150 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
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/ Packaging SPEC.
/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	