

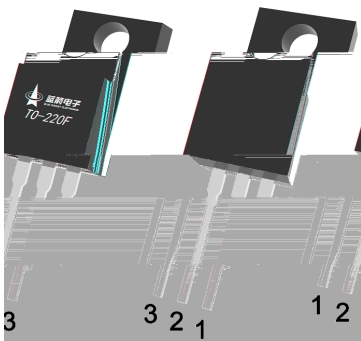
MBRF20100CT

Rev.I May.-2026

Schottky Barrier Diode in a TO-220F Plastic Package.

Low power loss,high efficiency. HF Product.

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



PIN1 Anode PIN 2 Cathode PIN 3

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

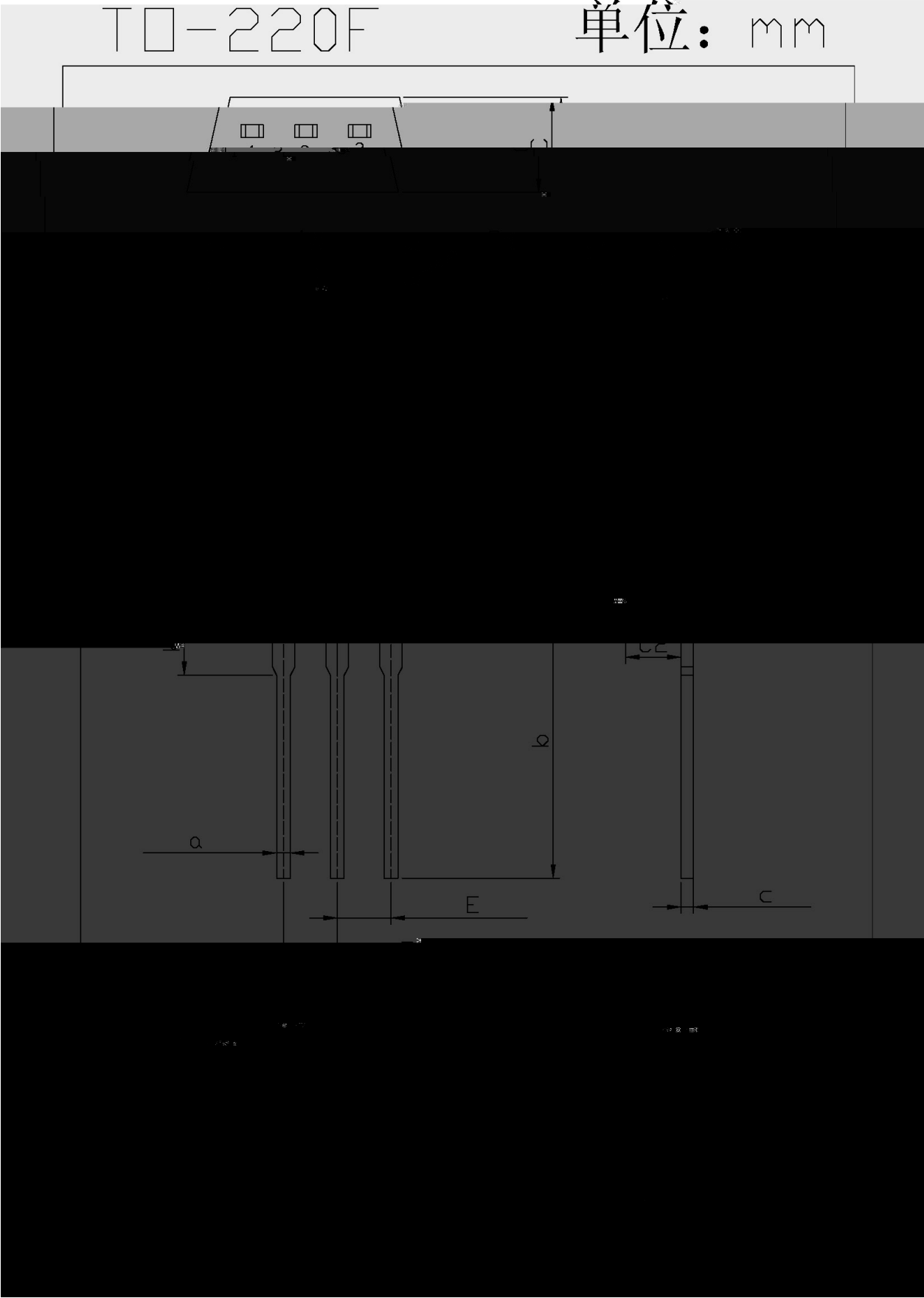
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
Reverse forward current	I_{FRM}	20	A
Average Forward Current	$I_{F(AV)}$	10	A
Average Forward Current total	$I_{F(AV) \text{ total}}$	20	A
Non Repetitive Peak Surge Current	I_{FSM}	150	A
Peak Repetitive Reverse Current	I_{RRM}	0.5	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	3.5	/W
Junction Temperature Range	T_j	175	
Storage Temperature Range	T_{stg}	-55 175	

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

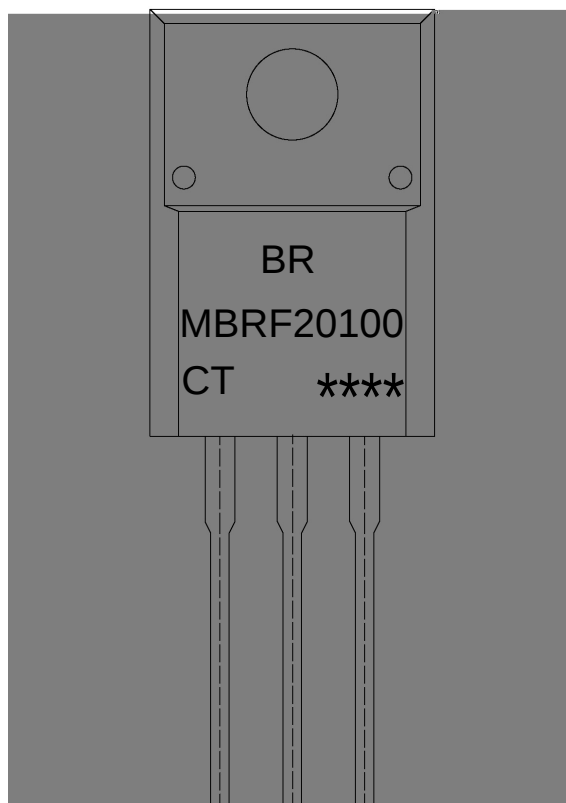
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=10A(T_c=25^\circ\text{C})$			0.85	V
		$I_F=10A(T_c=125^\circ\text{C})$			0.7	V
		$I_F=20A(T_c=25^\circ\text{C})$			0.95	V
		$I_F=20A(T_c=125^\circ\text{C})$			0.85	V
Instantaneous Reverse Current	I_R	$V_R=100V(T_c=25^\circ\text{C})$			0.15	mA
		$V_R=100V(T_c=125^\circ\text{C})$			150	mA
Critical rate of rise of reverse voltage	dv/dt				10000	V/ μs

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/ Package Dimensions



/ Marking Instructions



Note:

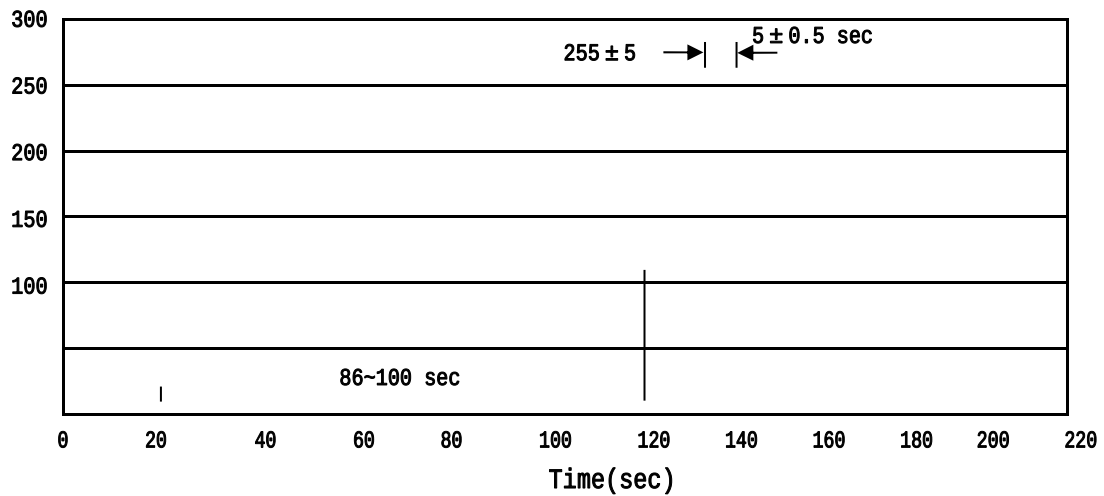
BR: Company Code

MBRF20100: Product Type Code

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	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	575×290×180

/ Notices