

/ Descriptions

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

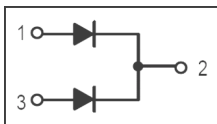
/ Features

Low power loss,high efficiency.

/ Applications

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

/ Equivalent Circuit



/ Pinning



1 2 3
PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions

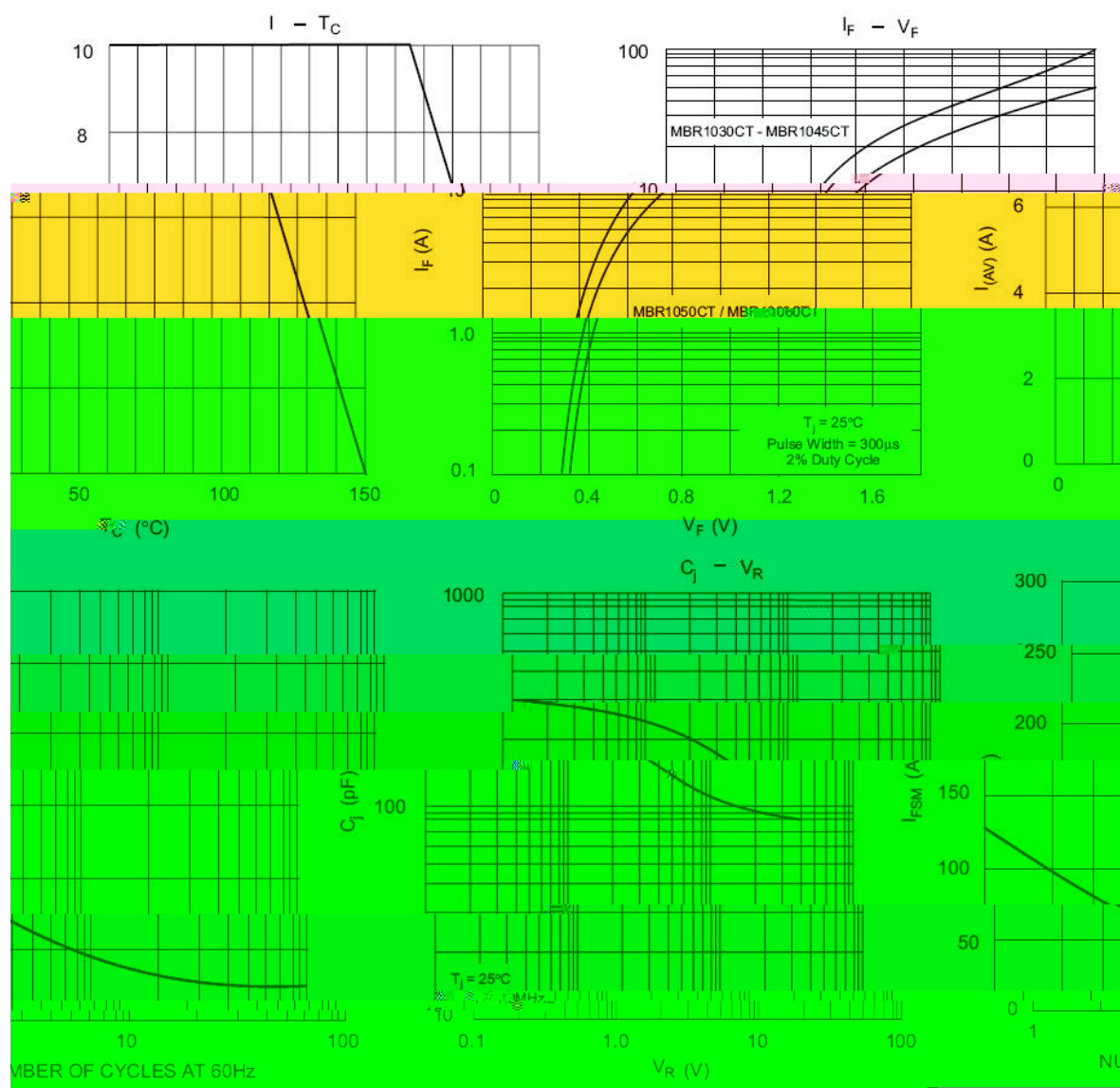
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Output Current	I_O	10	A
Repetitive Peak Reverse Current	I_{RRM}	1.0	A
Non Repetitive Peak Surge Current	I_{FSM}	125	A
Thermal Resistance, Junction to Case	R_{JC}	30	K/W
Junction and Storage Temperature Range	T_j, T_{stg}	-65~150	$^\circ\text{C}$

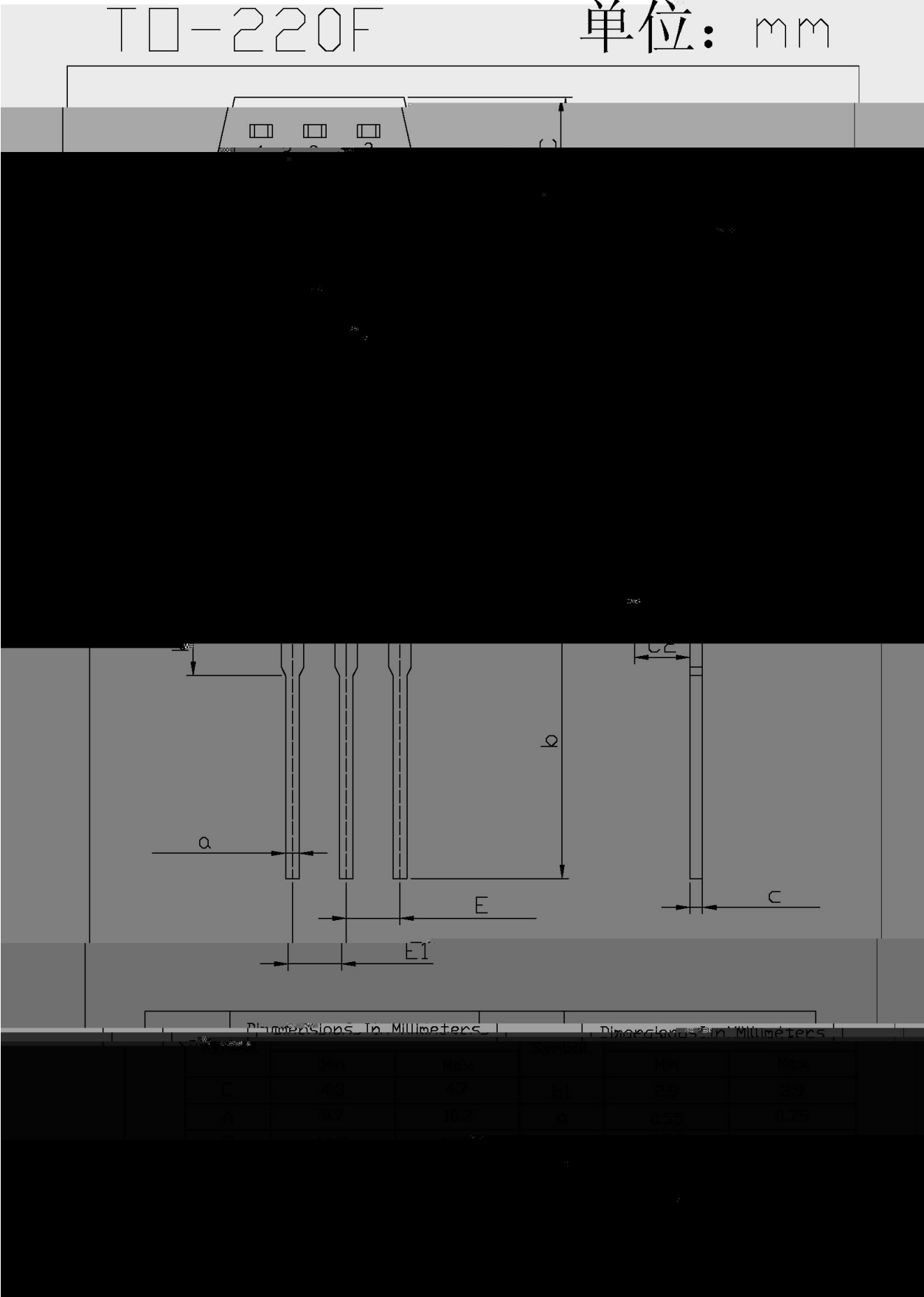
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=5.0\text{A}(T_c=25^\circ\text{C})$			0.57	V
		$I_F=5.0\text{A}(T_c=125^\circ\text{C})$			0.70	V
		$I_F=10\text{A}(T_c=25^\circ\text{C})$			0.84	V
Instantaneous Reverse Current	I_{RM}	$T_c=25^\circ\text{C}$			0.1	mA
		$T_c=125^\circ\text{C}$			15	mA
Typical Junction Capacitance	C_j				150	pF
Voltage Rate of Change	dv/dt				1000	V/ s

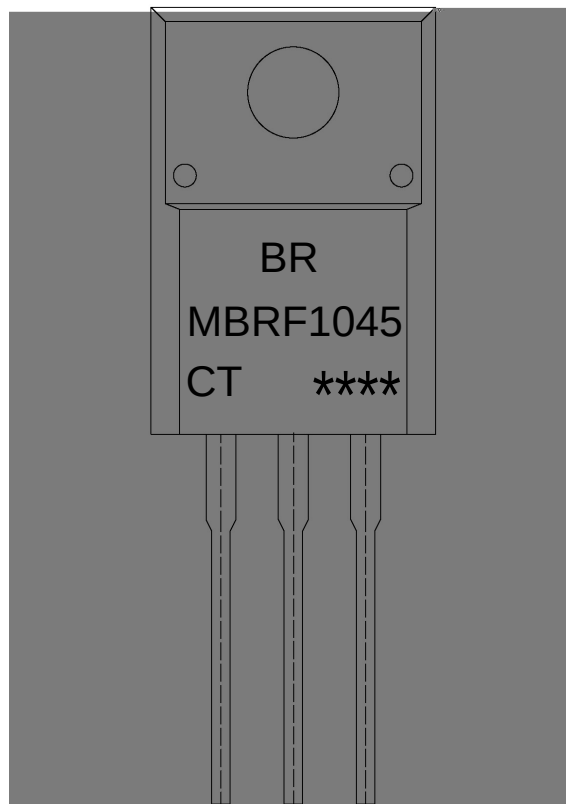
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Note:

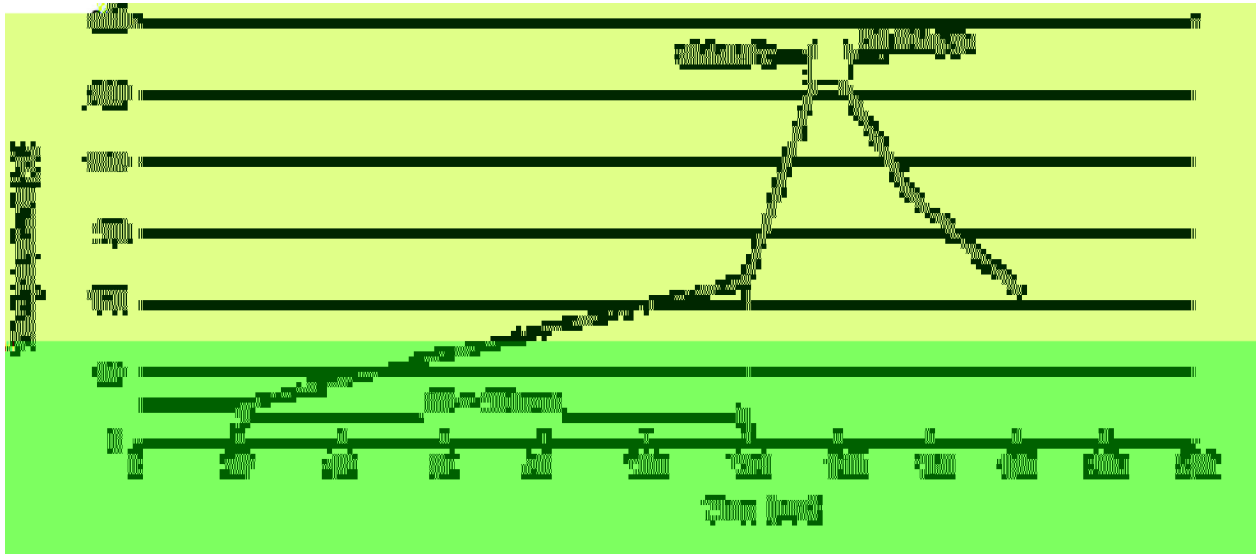
BR: Company Code

MBRF1045: 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	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