

MBRF1045CT

Rev.F Dec.-2016

/ Descriptions

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

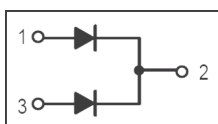
/ Features

Low power loss,high efficiency.

/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions

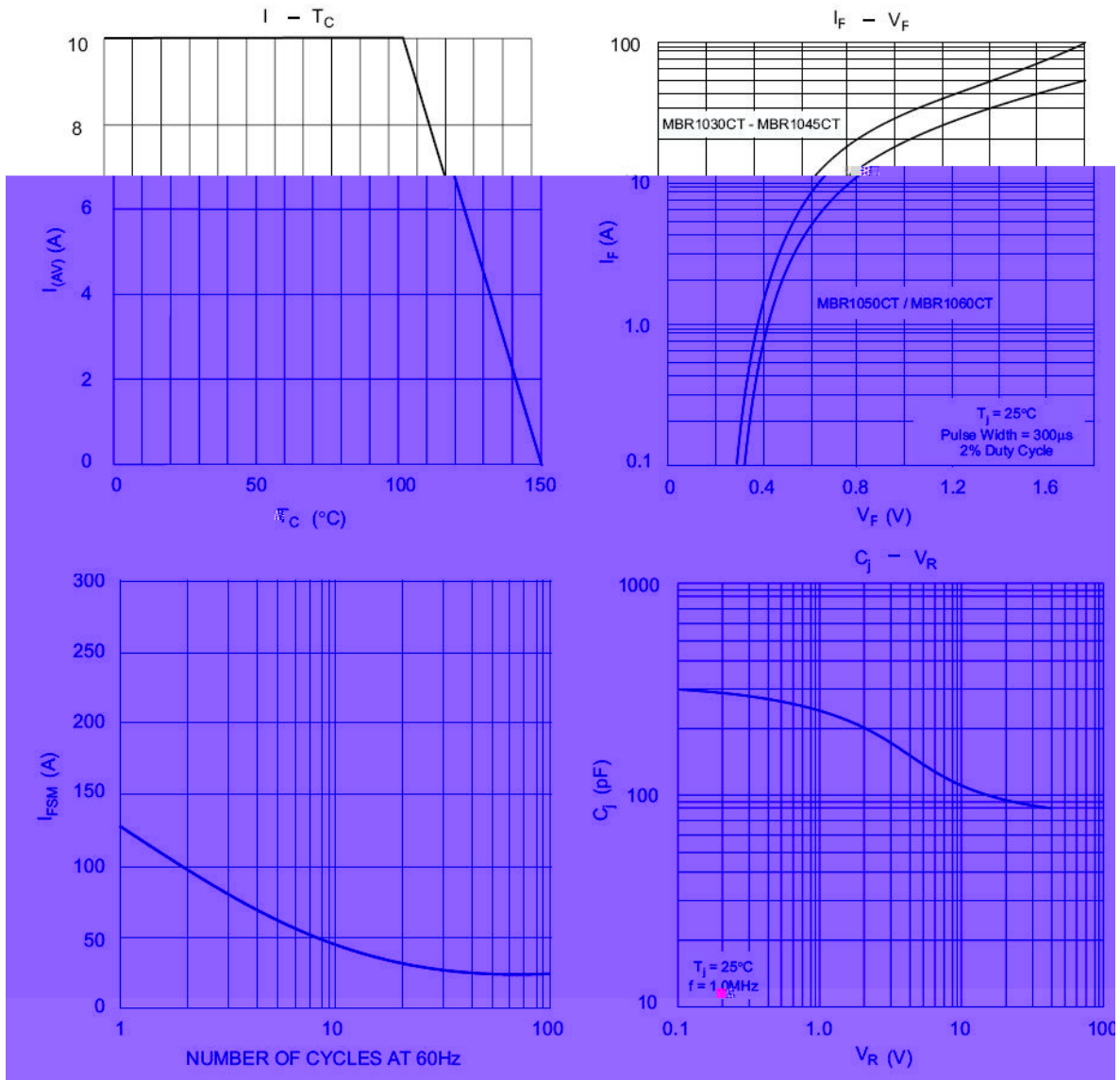
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	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	°C

/ Electrical Characteristics(Ta=25)

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

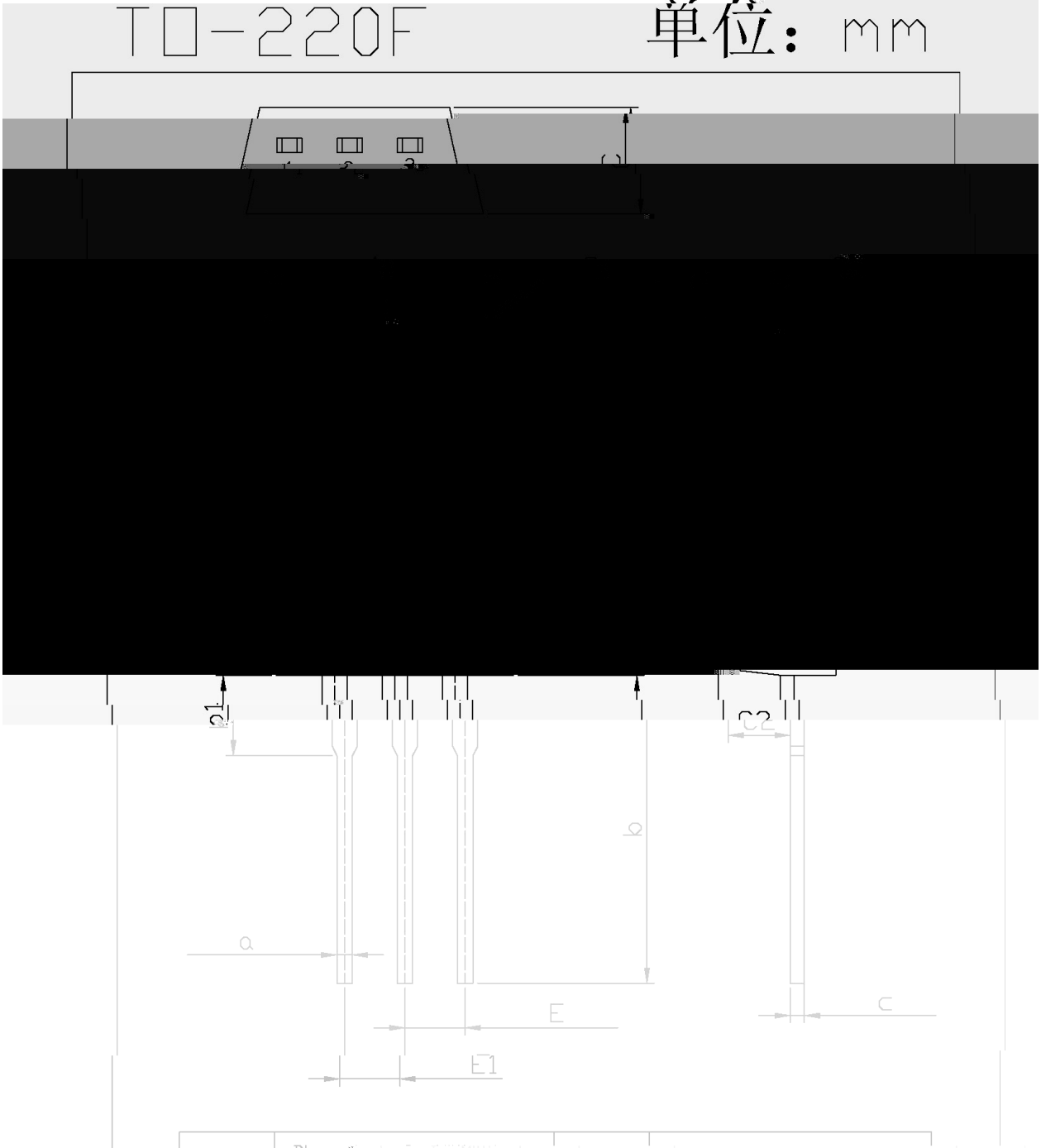
/ Electrical Characteristic Curve



/ Package Dimensions

TO-220F

单位: mm

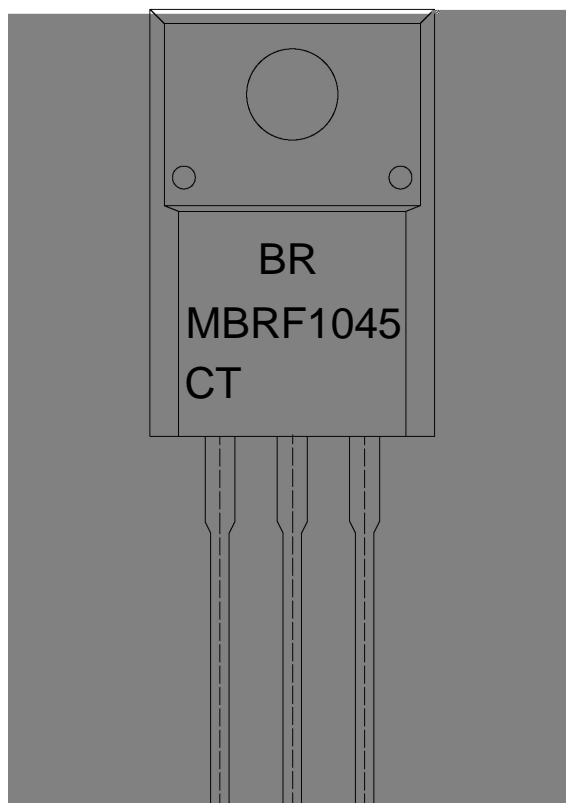


Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
C	4.3	4.7	b1	2.9	3.9
A	9.7	10.3	a	0.55	0.75
B	14.7	15.3	E	2.29	2.79
B1	3.8	4.0	E1	2.29	2.79
B2	2.9	3.1	C1	2.5	2.9
R	3.0	3.4	C2	2.5	2.7
b	12.5	13.5	c	0.5	0.7

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/ Marking Instructions



Note:

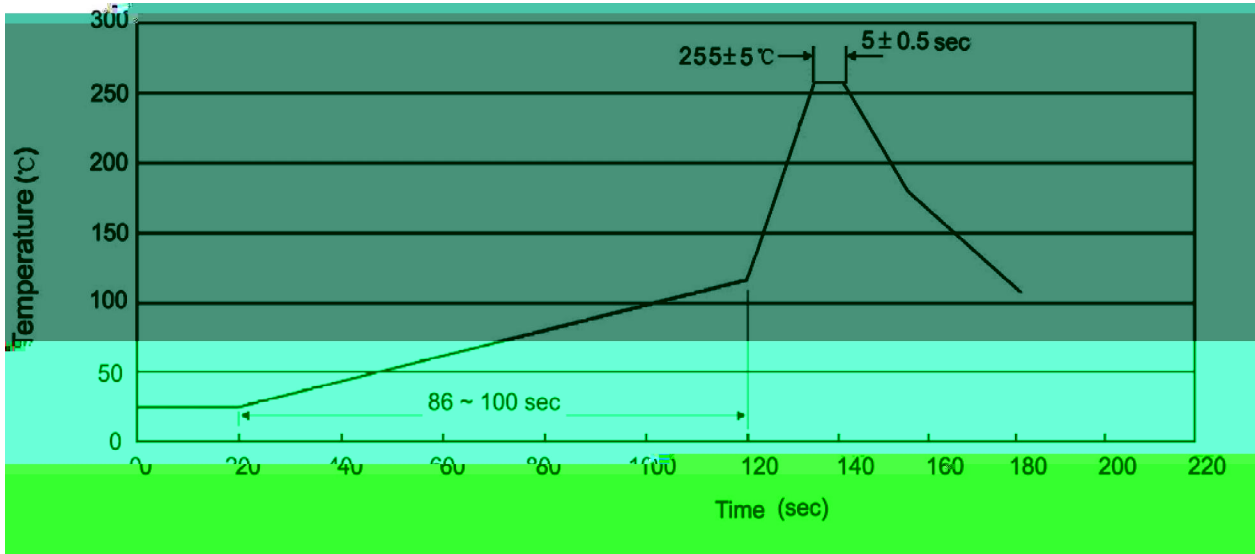
BR: Company Code

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)		

/ TUBE

Package Type	Units				Dimension (unit mm ³)		

/ Notices