

# MBR3045CT

Rev. G Oct.-2018

## / Descriptions

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

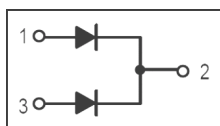
## / Features

Low power loss, high efficiency.

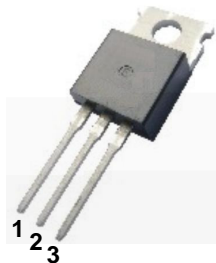
## / Applications

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<sub>FE</sub> Classifications & Marking

See Marking Instructions.

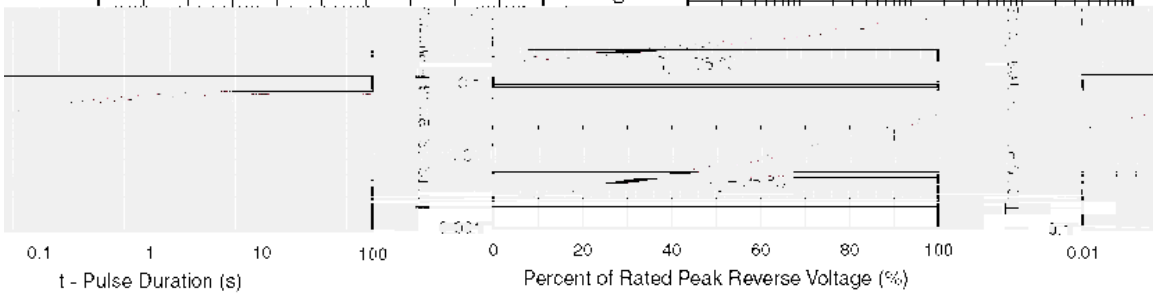
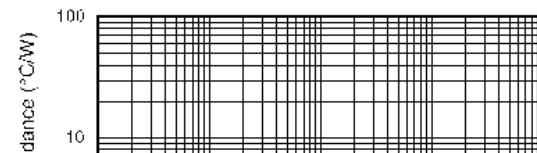
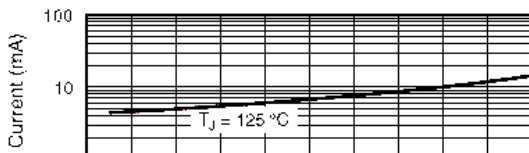
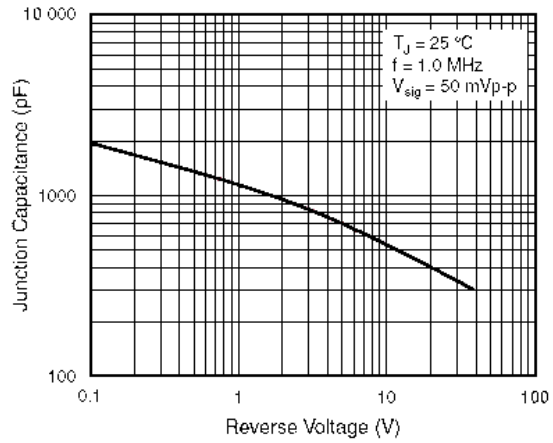
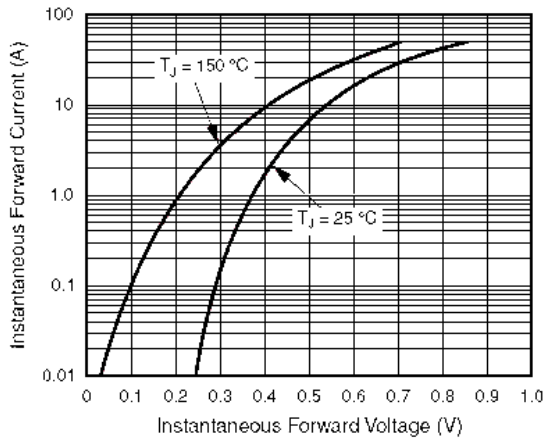
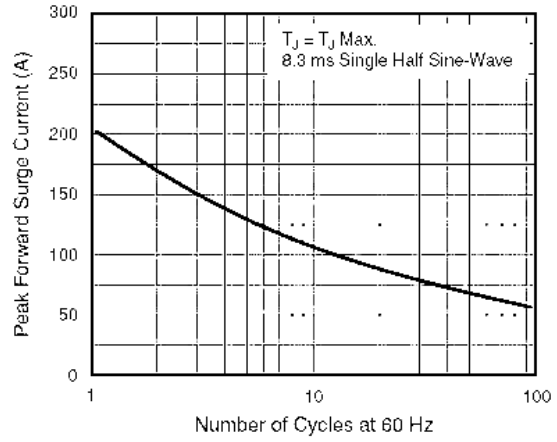
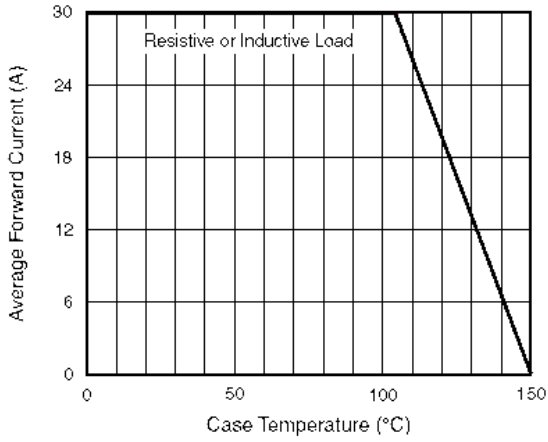
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	45	V
Peak Repetitive Forward Current	$I_{F(AV)}$	15	A
	$I_{F(AV)}$ total device	30	A
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	200	A
Repetitive Peak Reverse Surge Current	$I_{RRM}$	2.0	A
Thermal Resistance Junction to Case	$R_{JC}$	1.5	/W
Junction Temperature Range	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-65 150	

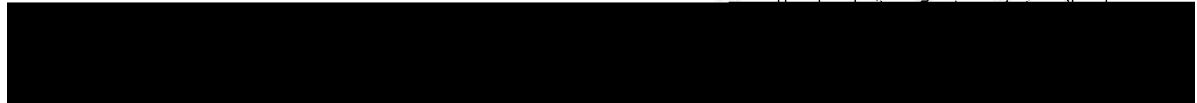
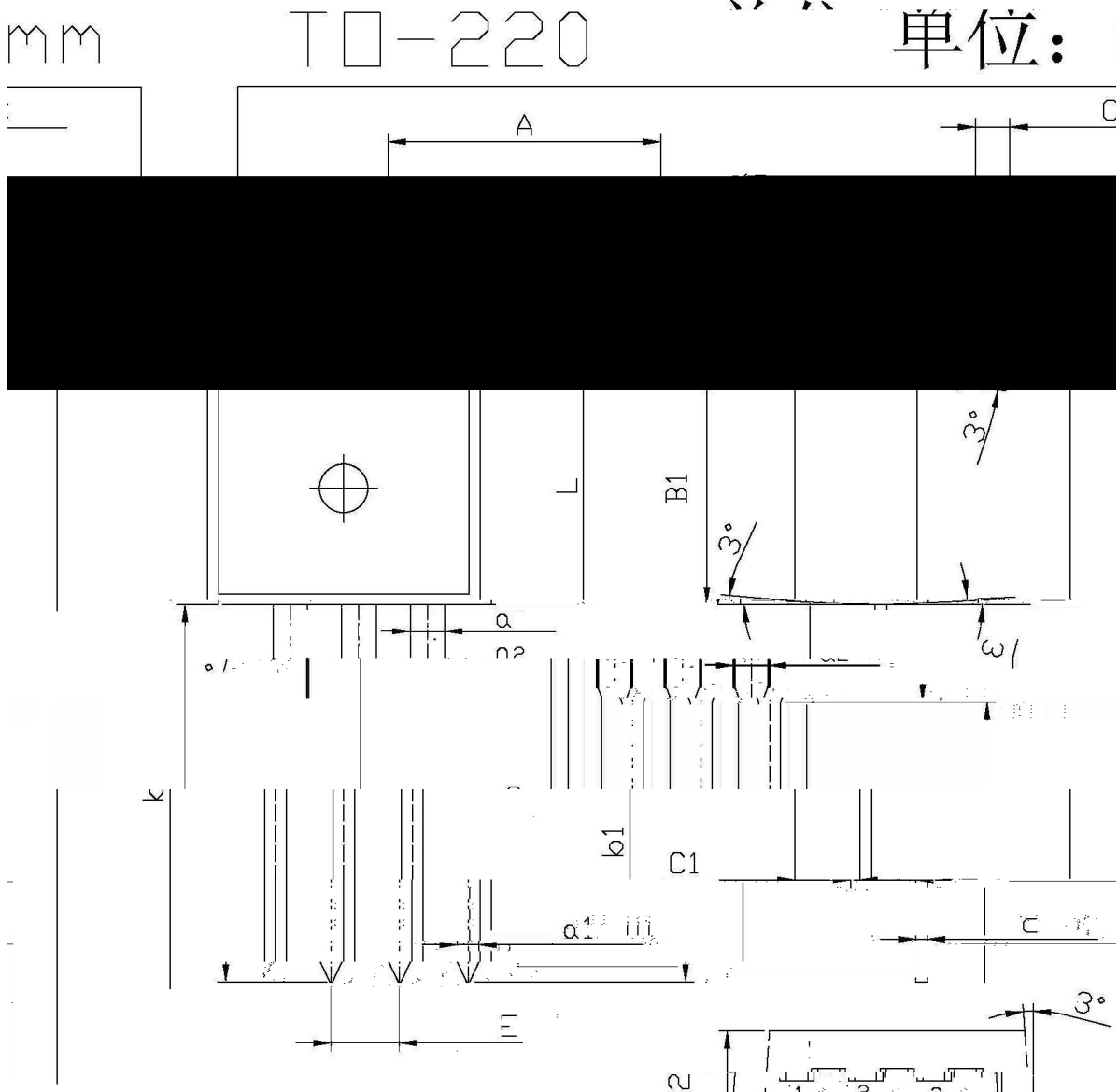
**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=30A(T_c=25 )$			0.76	V
		$I_F=20A(T_c=125 )$			0.60	V
		$I_F=30A(T_c=125 )$			0.72	V
Instantaneous Reverse Current	$I_R$	$T_j=25$			1.0	mA
		$T_j=125$			60	mA
Voltage Rate of Change	dv/dt				10000	V/ $\mu$ s

**/ Electrical Characteristic Curve**

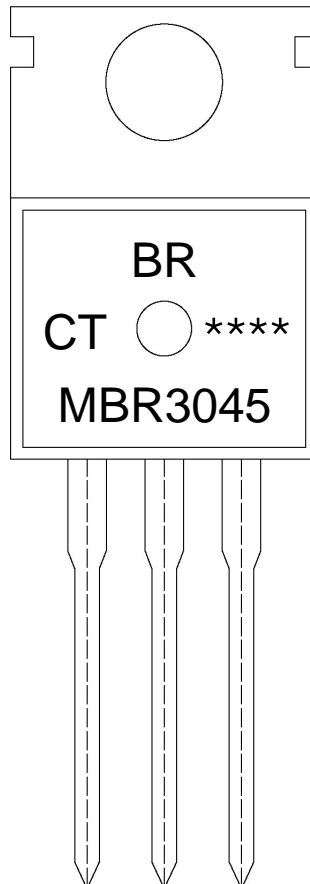


/ Package Dimensions



Symbol	DIMENSIONS IN INCHES		Symbol	DIMENSIONS IN MILLIMETERS	
	Min	Max		Min	Max
A	0.98	1.02	C	0.12	0.14
R	0.356	0.364	B	0.63	0.67
B1	0.36	0.39	C1	0.26	0.30
b1	0.06	0.07	a	0.09	0.10
a	0.122	0.132	c	0.4	0.6
a2	0.125	0.145			

**/ Marking Instructions**



BR

MBR3045

CT:

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Note:

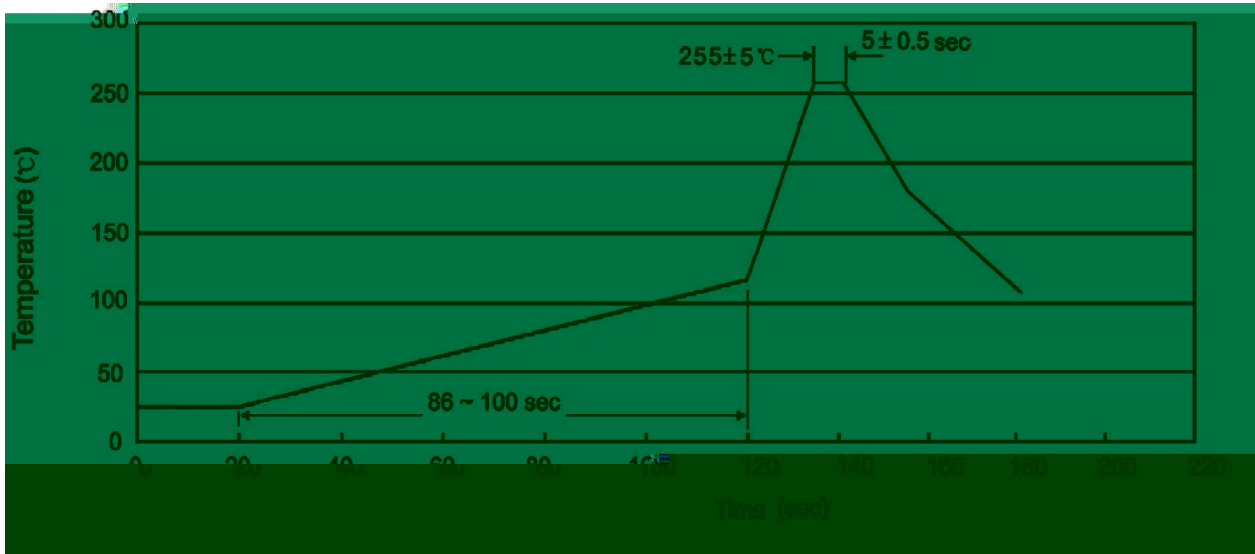
BR: Company Code

MBR3045 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	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
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices