

MBR1045CT

Rev.H Oct.-2018

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

Low power loss, high efficiency.

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



PIN1 Anode PIN 2 Cathode PIN 3 Anode

/ h_{FE} Classifications & Marking

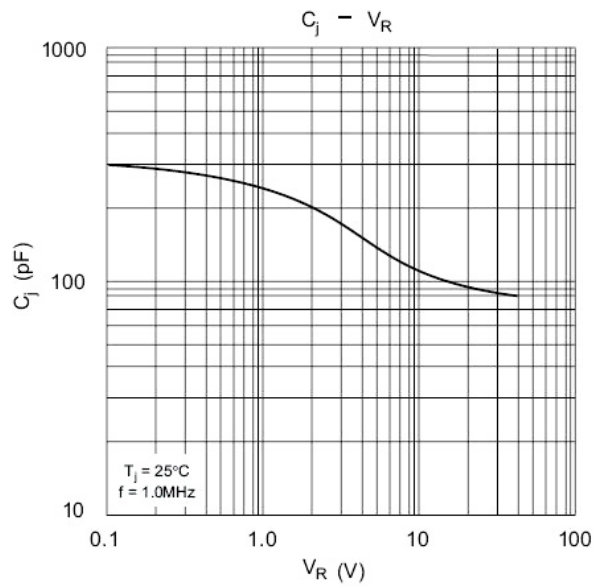
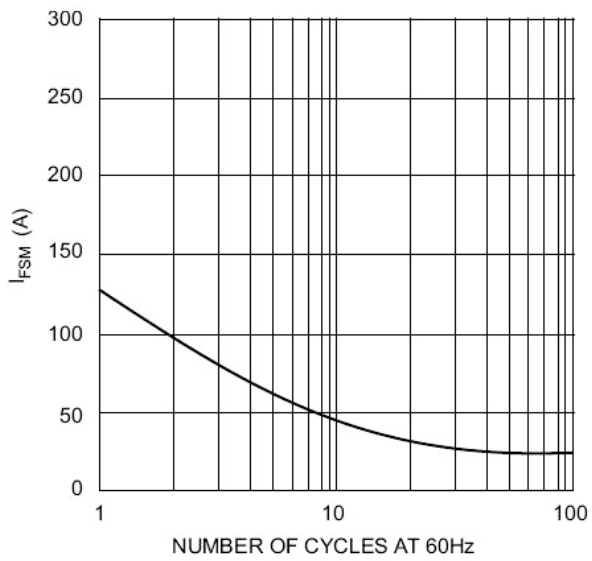
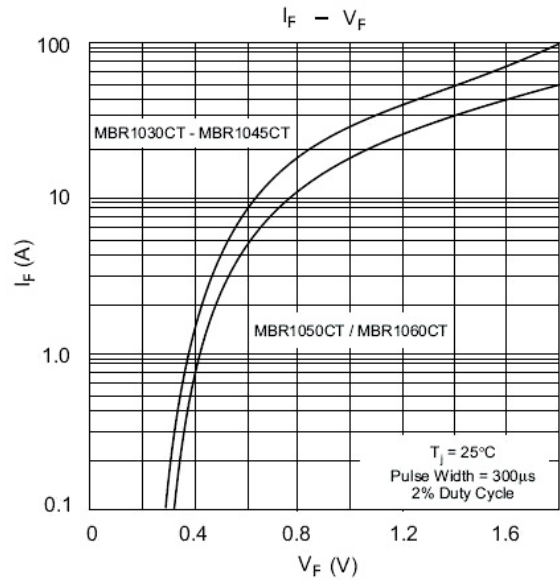
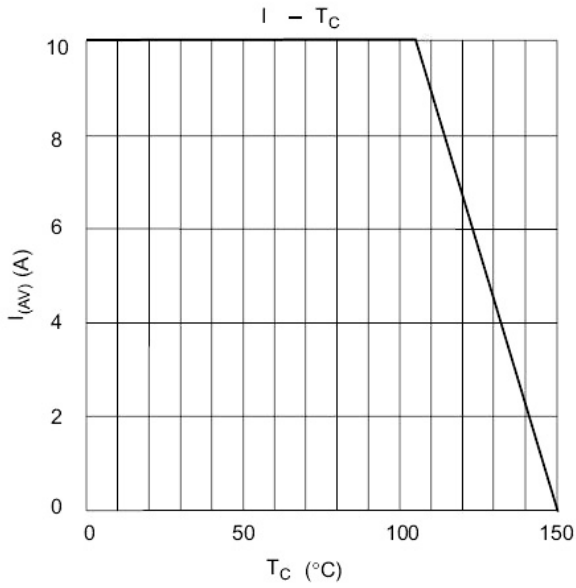
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Instantaneous Reverse Voltage	V_R	31.5	V
Average Rectified Output Current	I_O	10	A
Non Repetitive Peak Surge Current	I_{FSM}	125	A
Repetitive Peak Reverse Current	I_{RRM}	1.0	A
Thermal Resistance Junction to Case	$R_{\theta JC}$	30	K/W
Storage Temperature Range	T_{STG}	-65~150	

/ Electrical Characteristics(Ta=25)

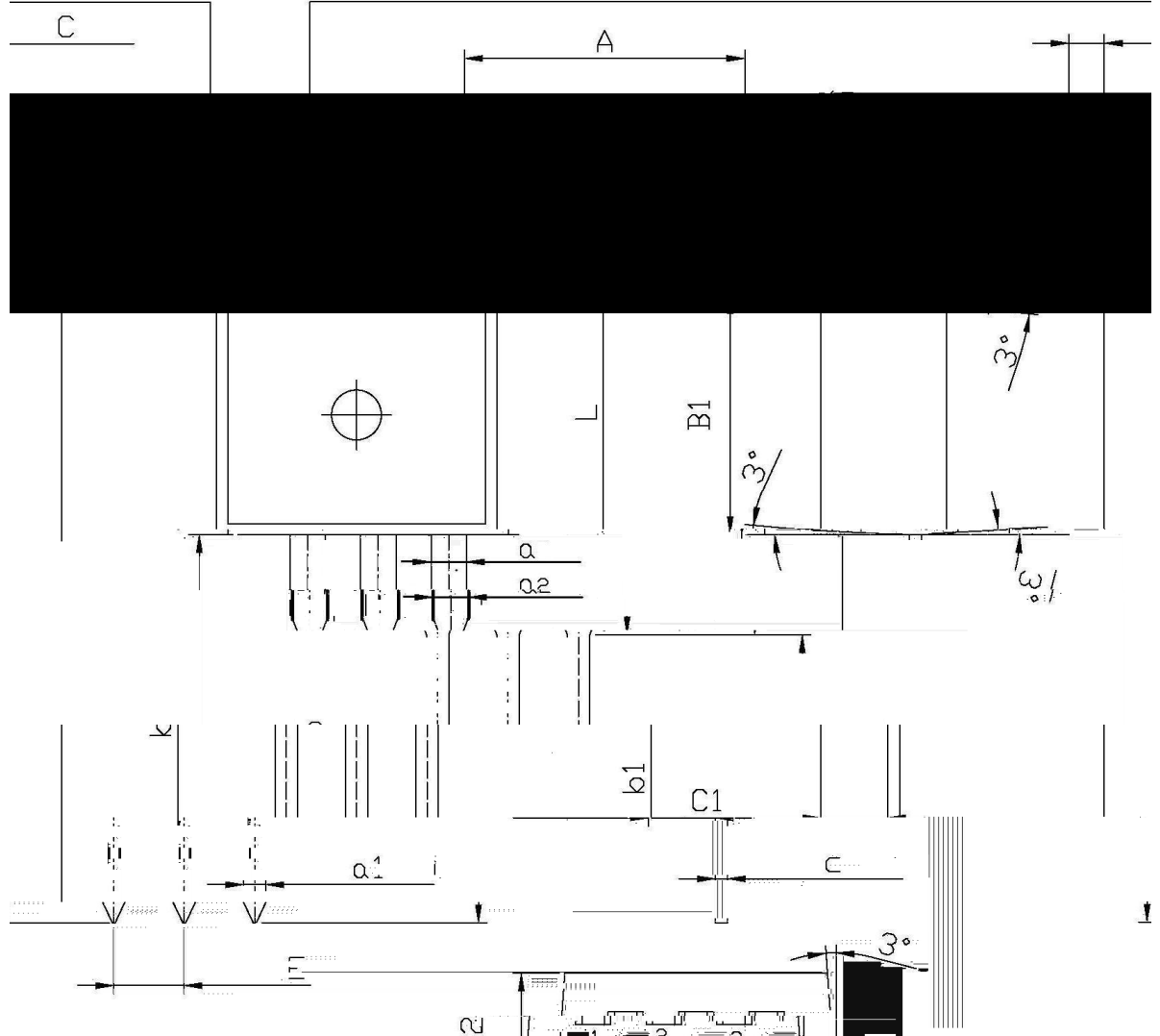
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=5A(T_J=125)$			0.57	V
		$I_F=5A(T_J=25)$			0.70	V
		$I_F=10A(T_J=25)$			0.84	V
Instantaneous Reverse Current	I_{RM}	$T_C=25$			0.1	mA
		$T_C=125$			15	mA
Junction Capacitance	C_j				150	pF
Voltage Rate of Change	dv/dt				1000	V/ μ s

/ Electrical Characteristic Curve



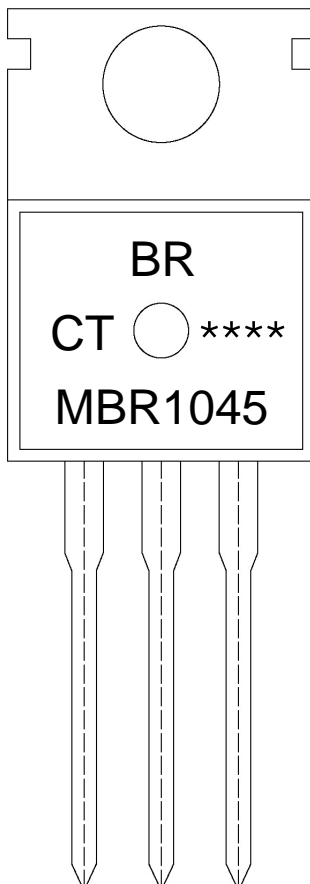
/ Package Dimensions

单位: mm TO-220 单位:



Symbol	Dimensions in milimeters		Symbol	Dimensions in millimeters	
	Min	Max		Min	Max
Δ	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
B1	9.0	9.4			15.7
	1.32	0.4	C	0.4	0.6
	1.25	1.45			0.2

/ Marking Instructions



BR

MBR1045

CT:

Note:

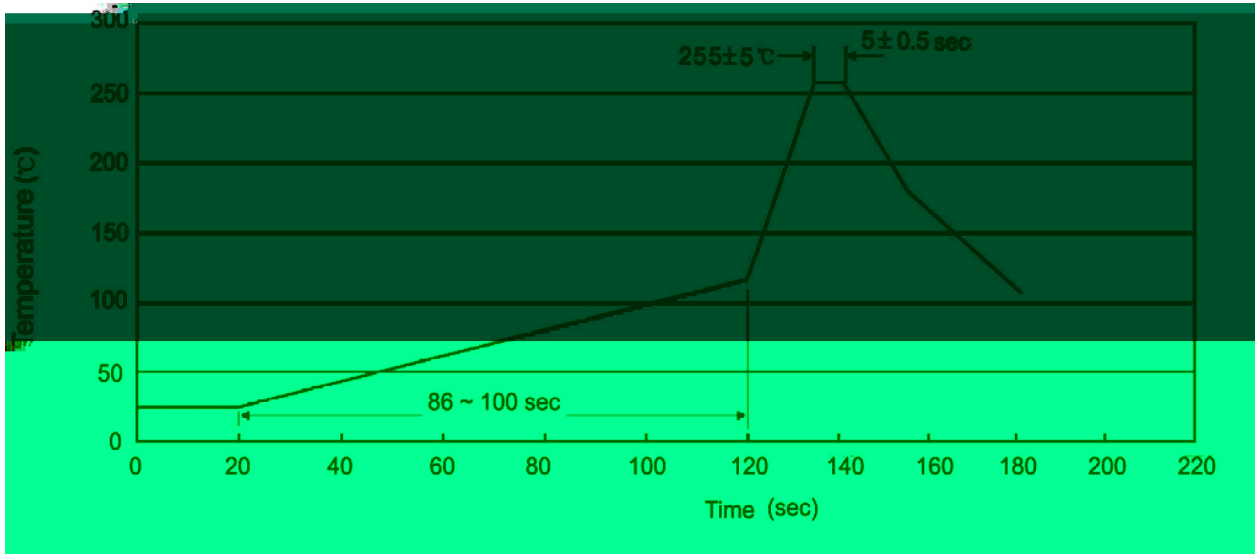
BR: Company Code

MBR1045 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 ³)		
	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 Units 包装数量 Dimension 包装尺寸 (unit: mm
封装形式