

MBR10200CT

Rev. H Oct.-2018

/ Descriptions

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

/ Features

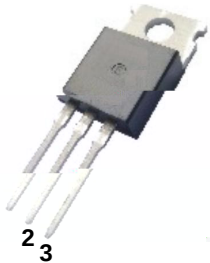
Low power loss, high efficiency.

/ 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_{FE} Classifications & Marking

See Marking Instructions.

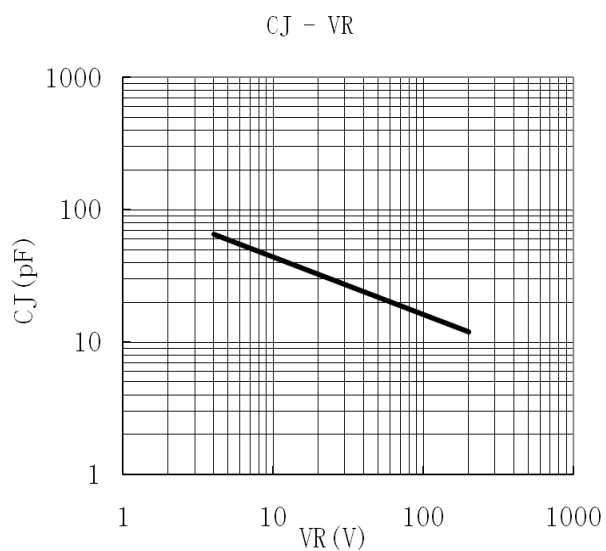
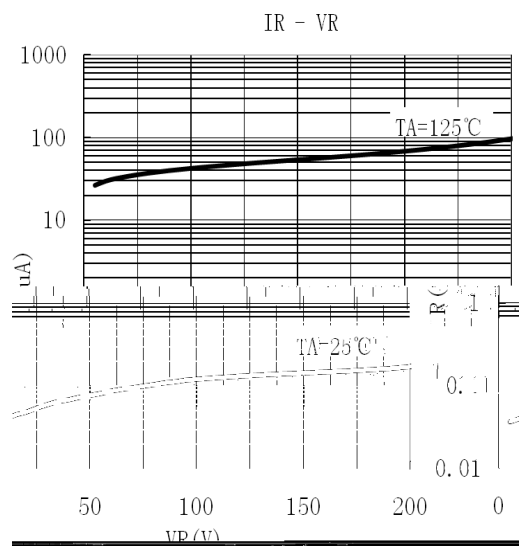
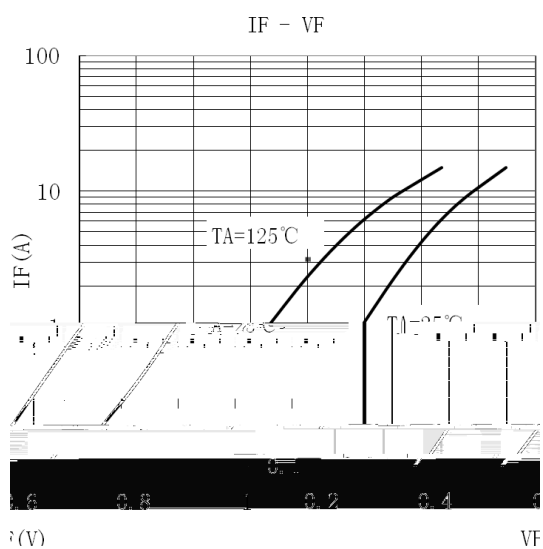
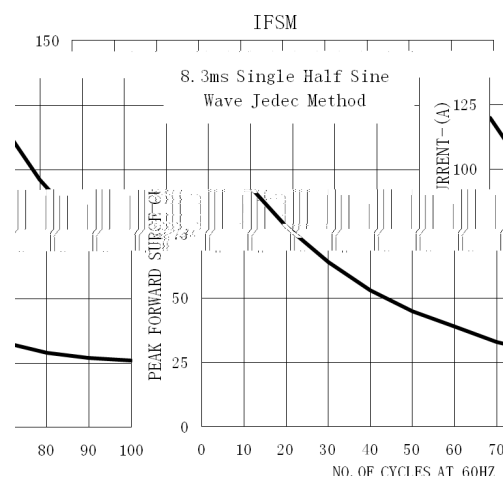
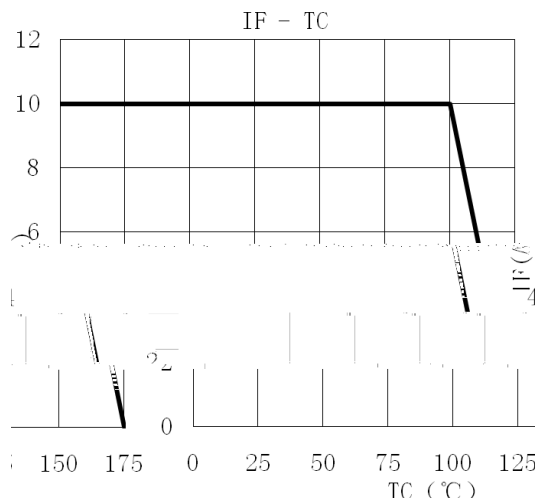
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Peak Repetitive Forward Current	$I_{F(AV)}$	10	A
Average Rectified Forward Current	I_{FRM}	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	150	A
Repetitive Peak Reverse Surge Current	I_{RRM}	0.5	A
Thermal Resistance Junction to Case	$R_{\theta JC}$	2.5	°C/W
Junction and Storage Temperature Range	T_j, T_{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Current Voltage	V_R		200			V
Forward Voltage	V_F	$I_F=5A$			0.99	V
		$I_F=5A(T_c=125^\circ C)$			0.87	V
Instantaneous Reverse Current	I_R	$V_R=200V$			0.15	mA
		$V_R=200V(T_c=125^\circ C)$			150	mA
Voltage Rate of Change	dv/dt				10000	V/ μs

/ Electrical Characteristic Curve

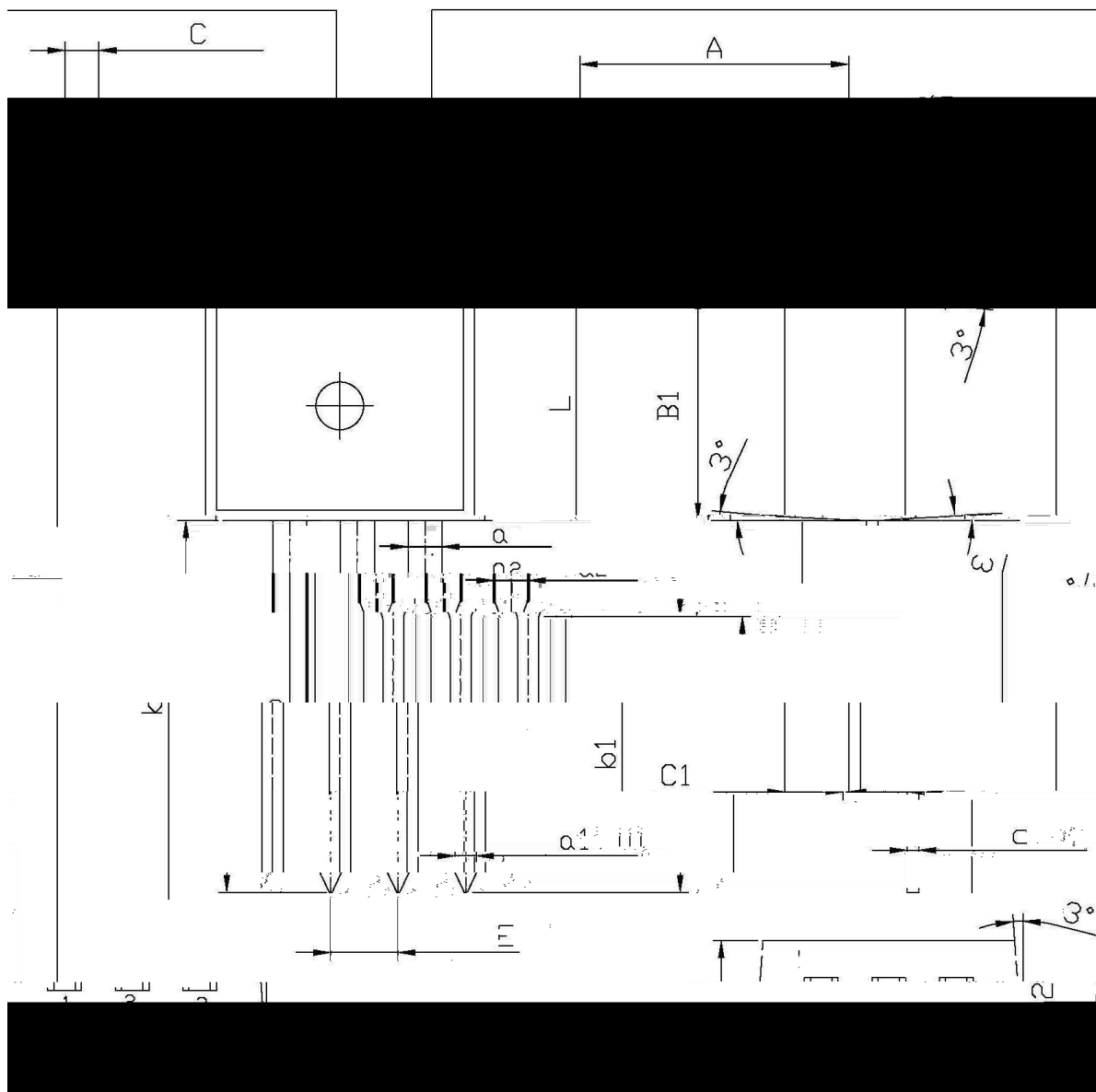


/ Package Dimensions

单位: mm

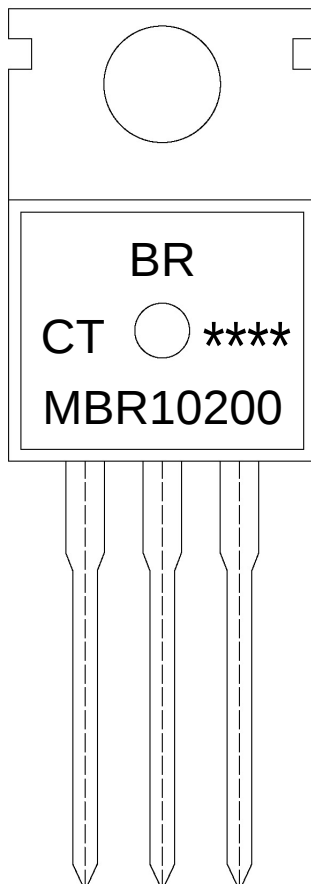
TO-220

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DIMENSIONS IN MILLIMETERS			DIMENSIONS IN MILLIMETERS		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	C	3.2	3.6
B1	15.7	16.1	D	1.22	1.32
C1	0.4	0.6	E	1.25	1.45
D1	0.4	0.6	F	3°	3°
E1	0.4	0.6	G	0.2	0.3
F1	0.4	0.6	H	0.2	0.3
G1	0.4	0.6	I	0.2	0.3
H1	0.4	0.6	J	0.2	0.3
I1	0.4	0.6	K	0.2	0.3
J1	0.4	0.6	L	0.2	0.3
K1	0.4	0.6	M	0.2	0.3
L1	0.4	0.6	N	0.2	0.3
M1	0.4	0.6	O	0.2	0.3
N1	0.4	0.6	P	0.2	0.3
O1	0.4	0.6	Q	0.2	0.3
P1	0.4	0.6	R	0.2	0.3
Q1	0.4	0.6	S	0.2	0.3
R1	0.4	0.6	T	0.2	0.3
S1	0.4	0.6	U	0.2	0.3
T1	0.4	0.6	V	0.2	0.3
U1	0.4	0.6	W	0.2	0.3
V1	0.4	0.6	X	0.2	0.3
W1	0.4	0.6	Y	0.2	0.3
X1	0.4	0.6	Z	0.2	0.3

/ Marking Instructions



BR

MBR10200

CT:

Note:

BR: Company Code

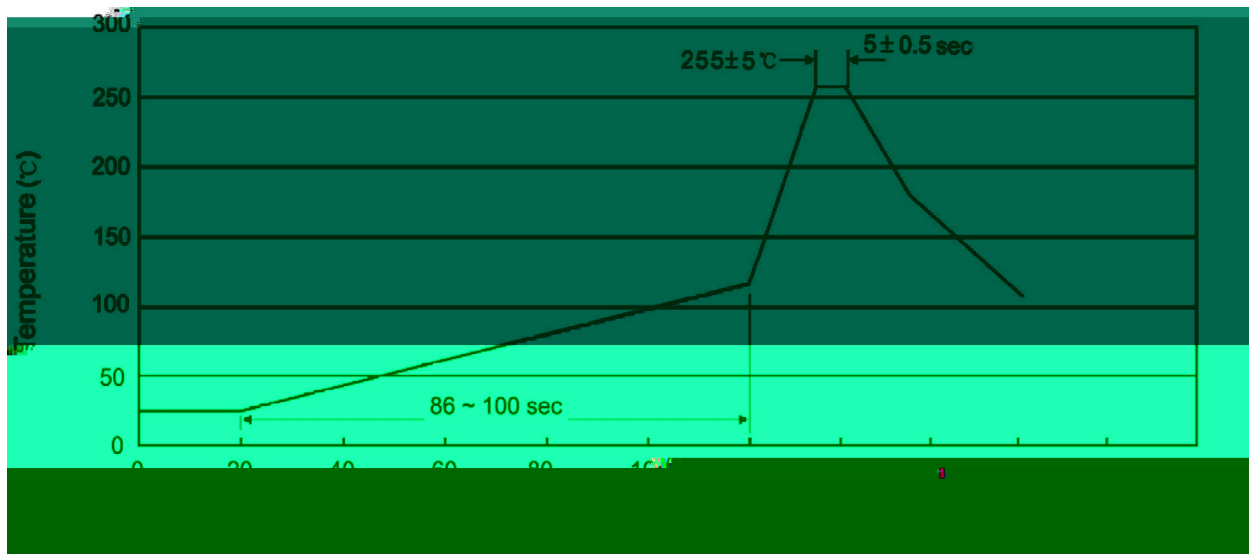
MBR10200 Product Type.

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