

/ Descriptions

TO-220

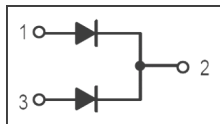
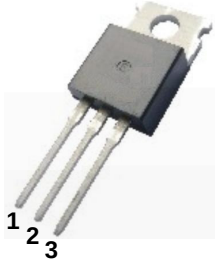
Schottky Barrier Diode in a TO-220 Plastic Package.

/ 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}	60	V
Instantaneous Reverse Voltage	V_R	60	V
Average Forward Current	$I_{F(AV)}$	10	A
Non Repetitive Peak Surge Current	I_{FSM}	125	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	3.0	°C/W
Storage Temperature Range	T_{STG}	-55 150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=10\mu A$	60			V
Peak Forward Voltage	V_{FM}	$I_F=5A$			0.80	V
		$I_F=5A(T_c=125^\circ C)$			0.65	V
		$I_F=10A$			0.90	V
		$I_F=10A(T_c=125^\circ C)$			0.75	V
Instantaneous Reverse Current	I_{RM}	$V_R=60V$			0.1	mA
		$V_R=60V \quad T_c=125^\circ C$			15	mA

/ Electrical Characteristic Curve

FIG. 1 – FORWARD CURRENT DERATING CURVE

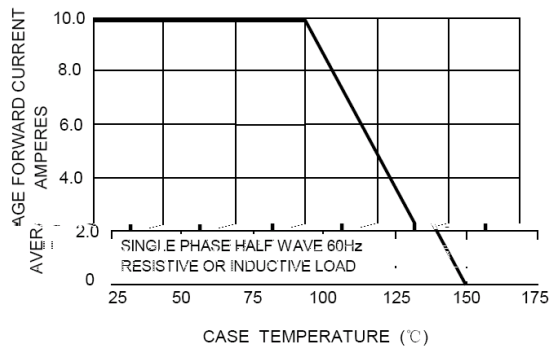


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

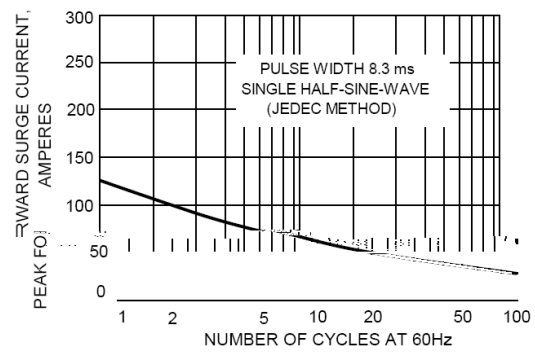


FIG.3-TYPICAL REVER CHARACTERISTICS

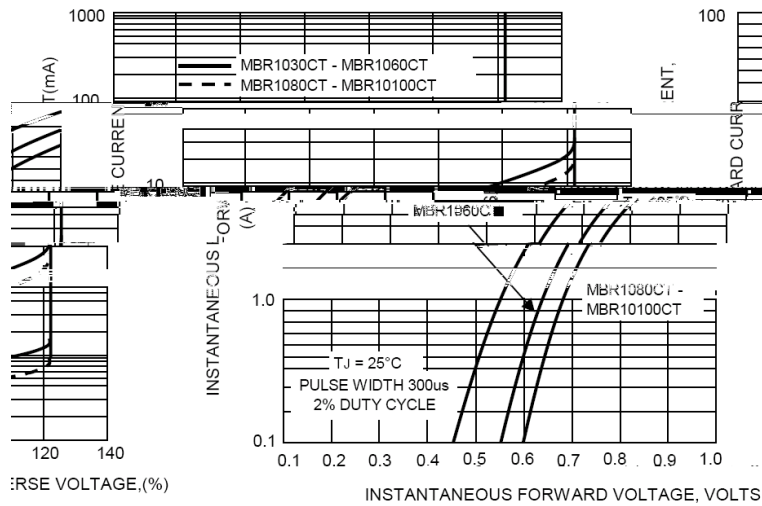


FIG.4-TYPICAL FORWARD CHARACTERISTICS

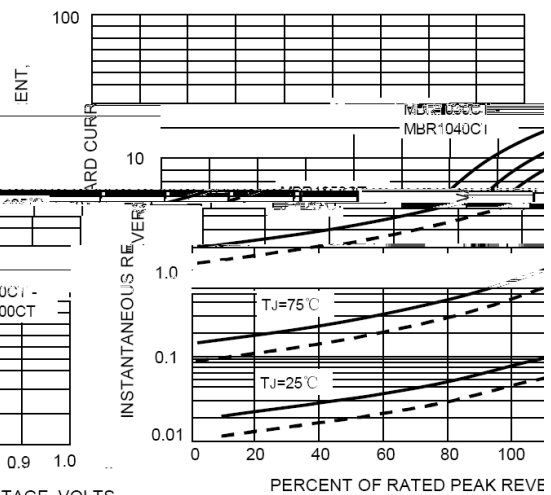
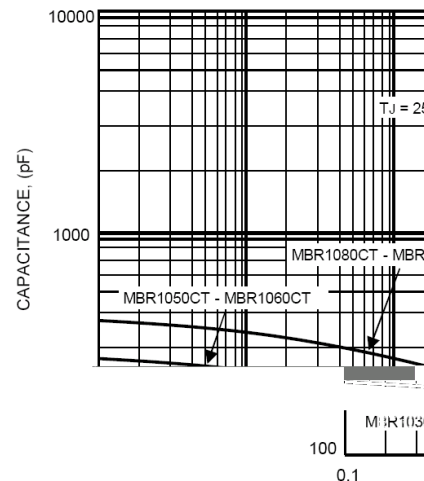
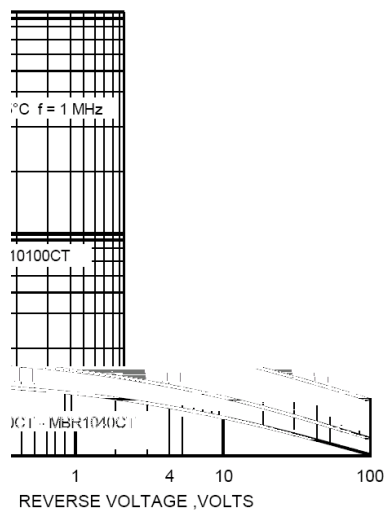
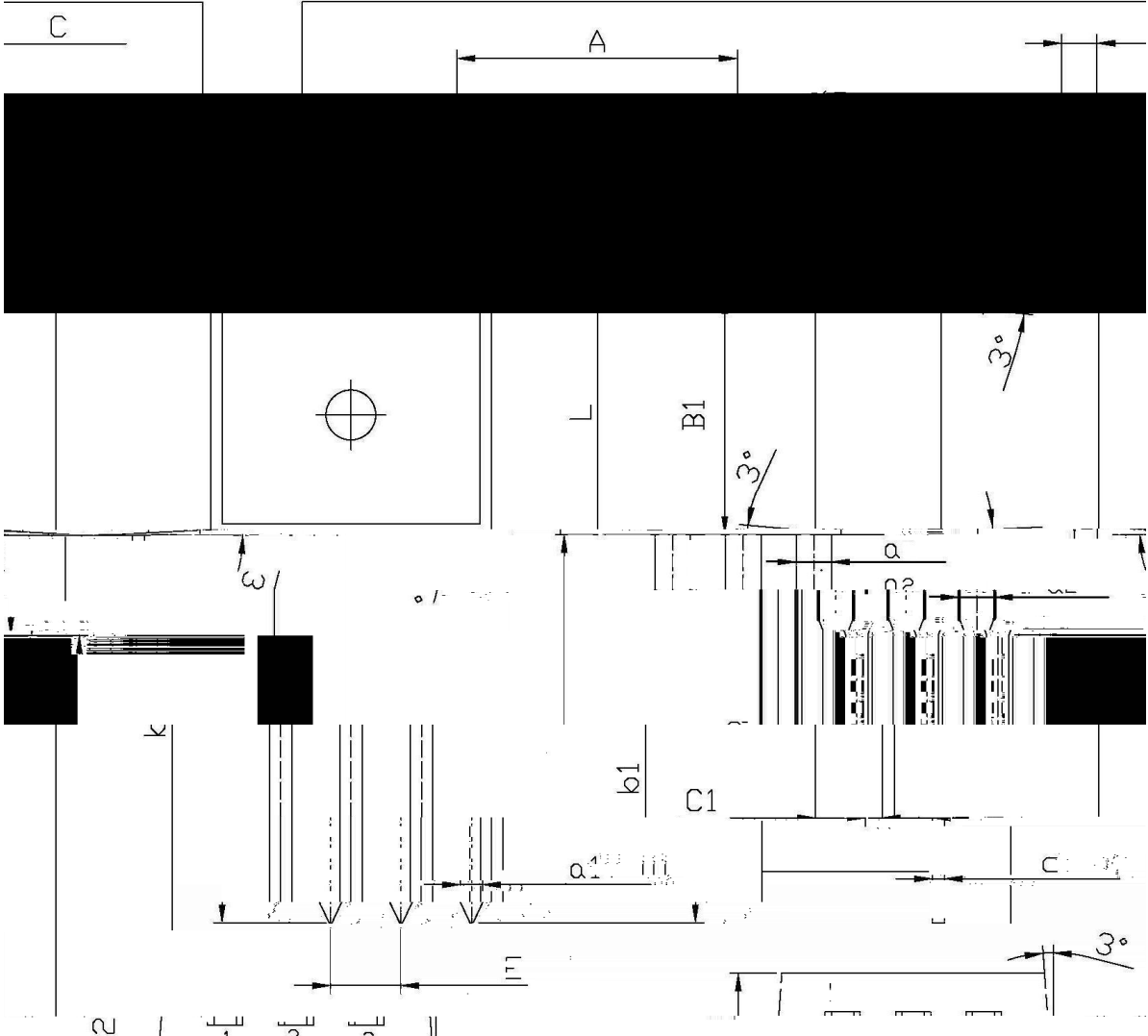


FIG 5 – TYPICAL JUNCTION CAPACITANCE



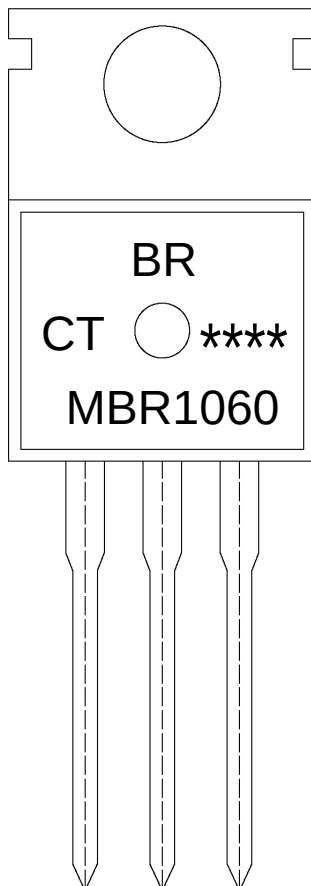
/ Package Dimensions

单位: mm TO-220



DIMENSIONS IN MILLIMETERS			DIMENSIONS IN MILLIMETERS		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	10.2	C	1.2	1.4
B1	9.0	9.4	B	6.3	6.7
L	3.56	3.64	a	15.7	16.1
a1	1.22	1.32	b1	0.7	0.9
C1	1.25	1.45	C2	0.4	0.6

/ Marking Instructions



BR

MBR1060

CT:

Note:

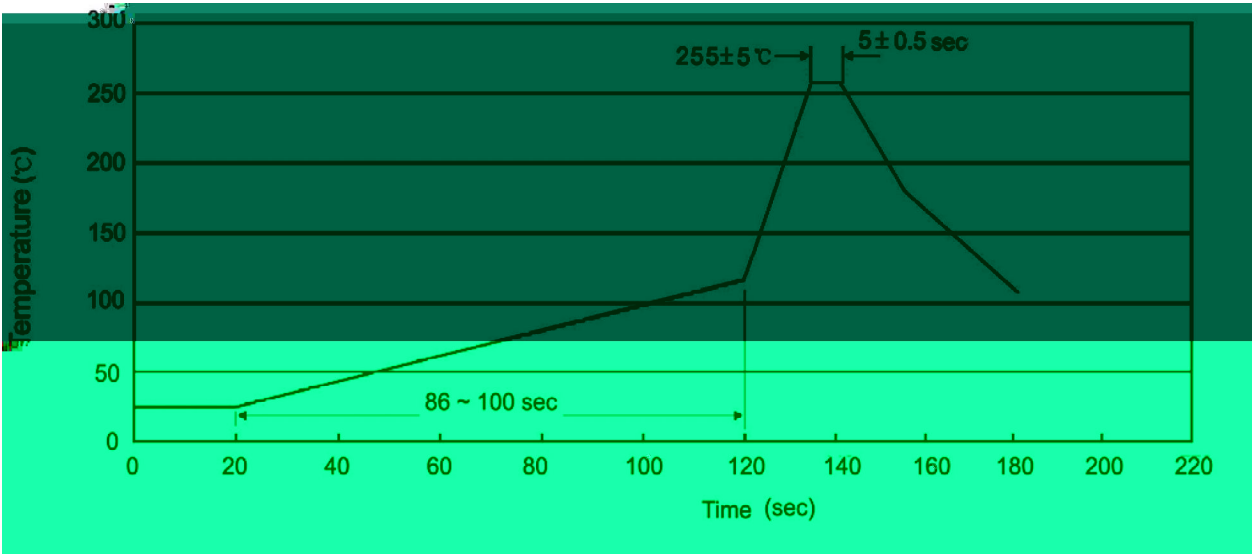
BR: Company Code

MBR1060 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	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