/ Descriptions

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

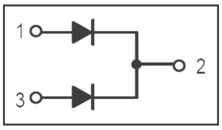
/ Features

Low power loss, high efficiency.

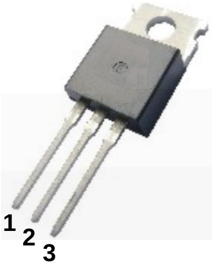
/ Applications

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
Average Forward Current	$I_{F(AV)}$	20	A
Non Repetitive Peak Surge Current	I_{FSM}	150	A
Power Dissipation	P_D	2.0	W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	2.0	/W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	60	/W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=10A(T_C=25)			0.80	V
		I_F=10A(T_C=125)			0.70	V
		I_F=20A(T_C=25)			0.95	V
		I_F=20A(T_C=125)			0.85	V
Instantaneous Reverse Current	I_R	T_A=25			100	uA
		T_A=125			30	mA
Repetitive Peak Reverse Current	I_{RRM}	f=1.0KHZ			0.5	A

/ Electrical Characteristic Curve

Figure 1. Forward Current Derating Curve

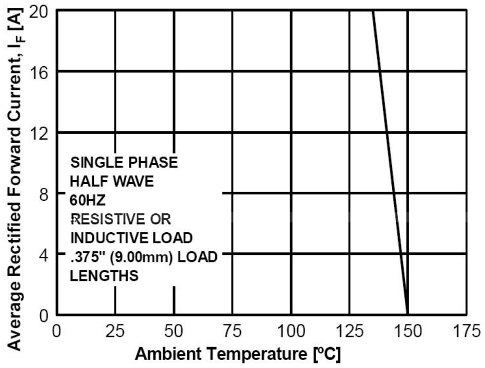


Figure 2. Non-Repetitive Surge Current

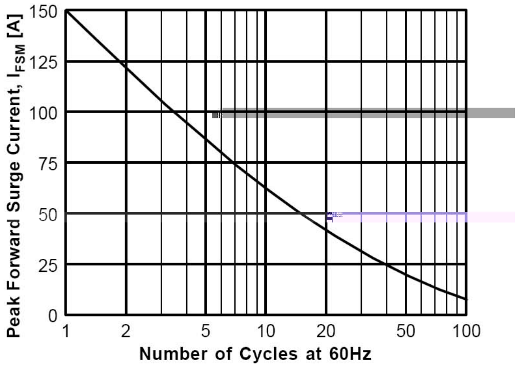


Figure 3. Forward Voltage Characteristics

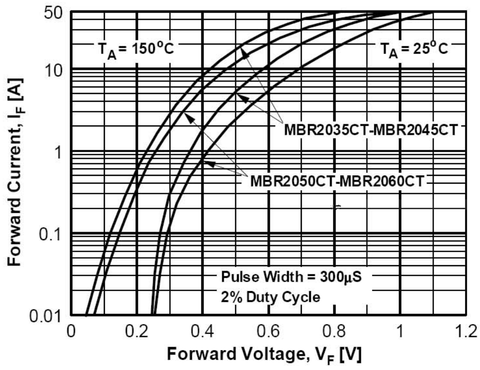


Figure 4. Reverse Current vs Reverse Voltage

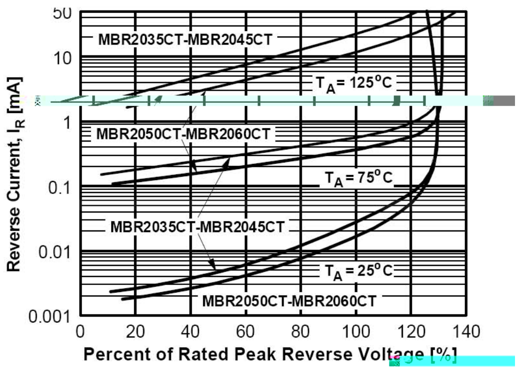


Figure 5. Total Capacitance

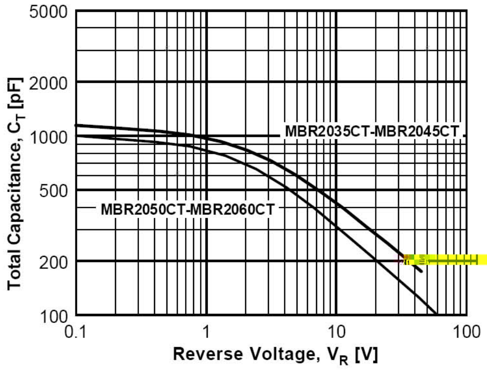
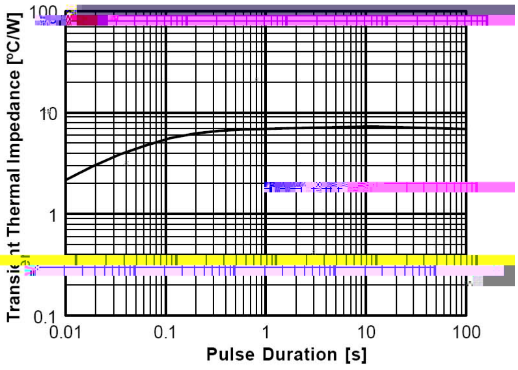
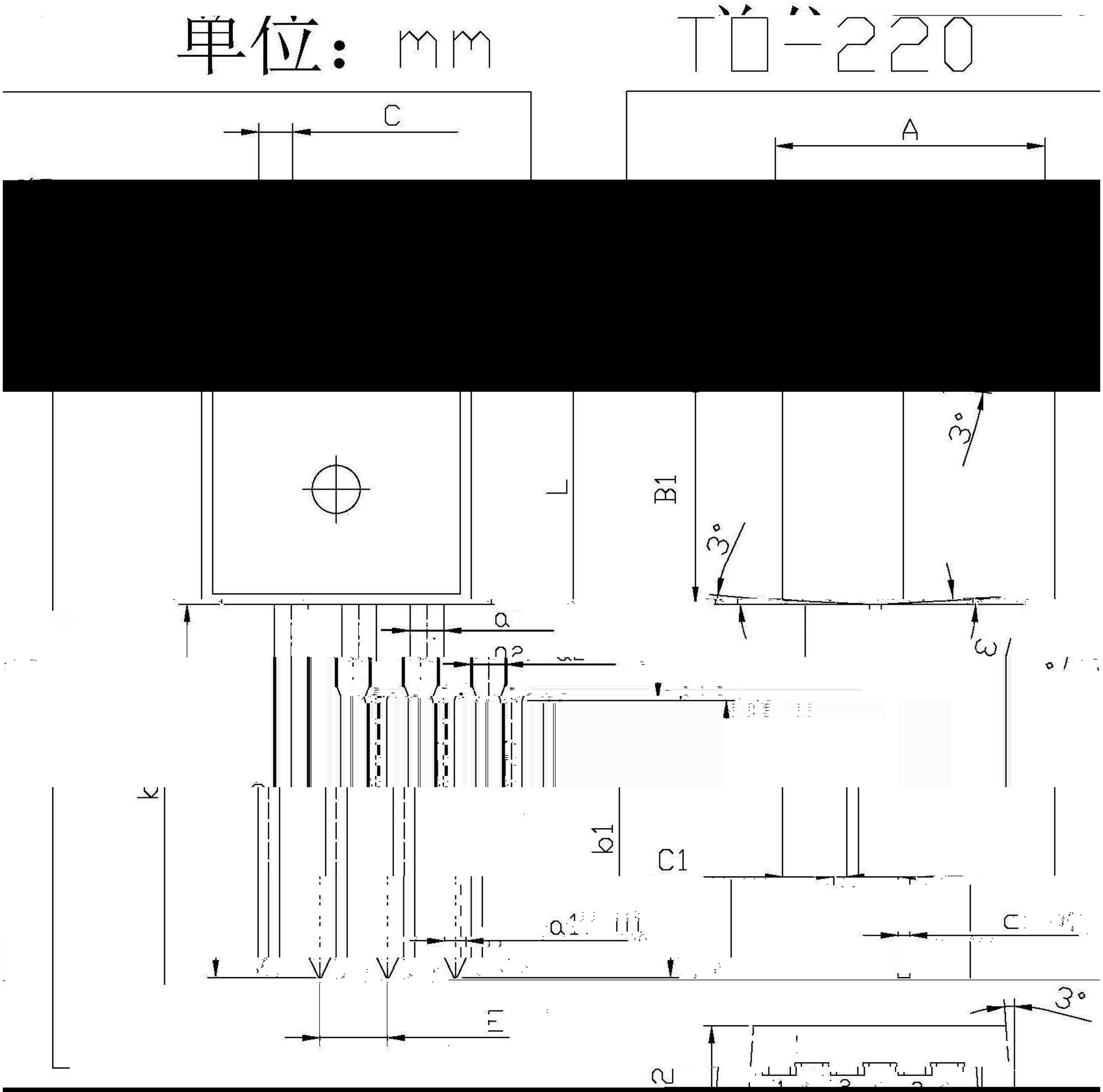


Figure 6. Thermal Impedance Characteristics



/ Package Dimensions

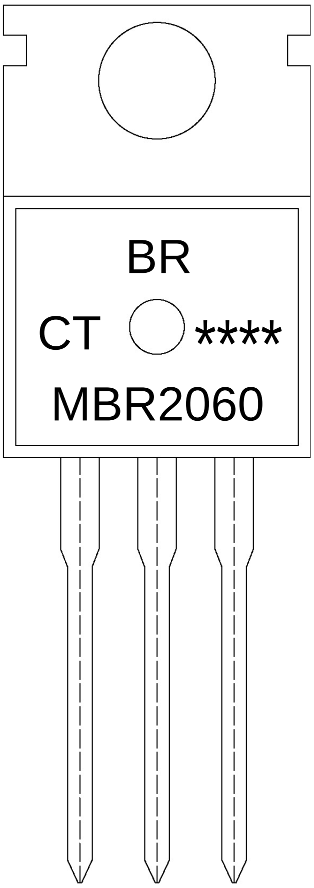


[redacted]

[redacted]

Symbol	Dimensions In Millimeters Min	Dimensions In Millimeters Max	Symbol	Dimensions In Millimeters Min	Dimensions In Millimeters Max	
A	9.8	10.2	C	1.2	1.4	
R	3.56	3.64	B	6.3	6.7	
[illegible]	15.7	16.1	B1	9.0	9.4	
[illegible]	12.6	13.6	C1	2.2	2.6	b
[illegible]	9.6	10.6	b1	0.7	0.9	h1
[illegible]	1.22	1.32	c	0.4	0.6	a
[illegible]	2.34	2.74	C2	4.3	4.7	E
[illegible]	1.25	1.45				a2

/ Marking Instructions



BR

MBR2060

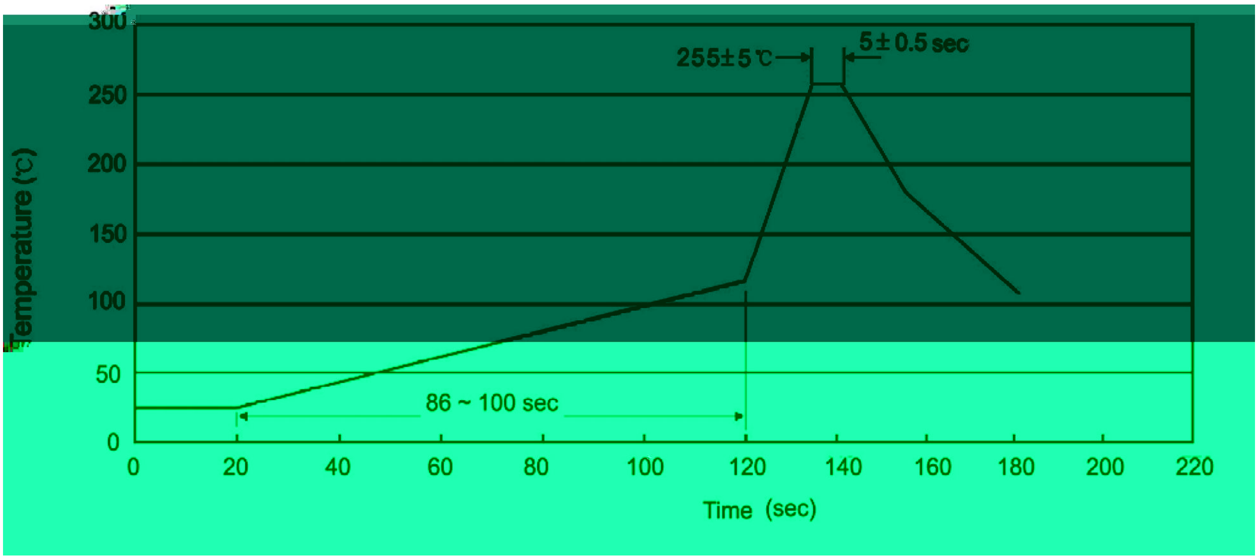
CT:

****

Note:

BR:	Company Code
MBR2060	Product Type.
CT:	Internal Structure
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



1 25 150 60 90sec;
2 255±5 5±0.5sec;
3 2 10 /sec.

Note:
1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255±5 , Duration:5±0.5sec.
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