

MBR2060CT

Rev.H Oct.-2018

/ Descriptions

TO-220

Schottky Barrier Diode in a TO-220 Plastic Package.

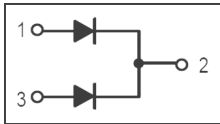
/ Features

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}	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_{JL}	2.0	/W
Thermal Resistance Junction to Ambient	R_{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

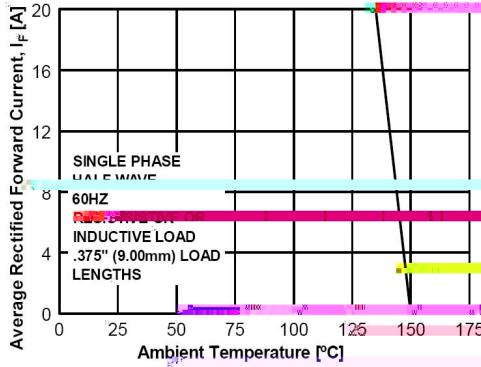


Figure 2. Peak Forward Surge Current vs. Number of Cycles at 60Hz

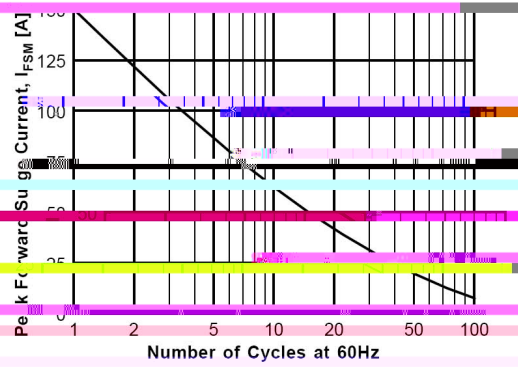


Figure 3. Forward Voltage Characteristics

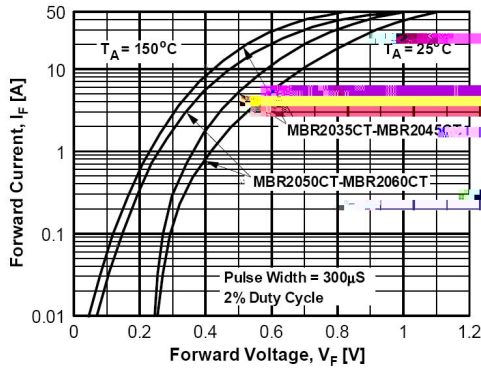


Figure 4. Reverse Current vs. Reverse Voltage

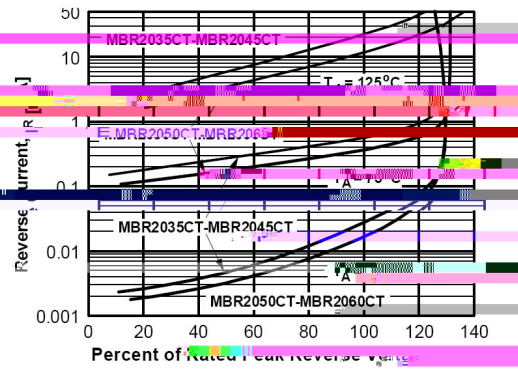


Figure 5. Total Capacitance

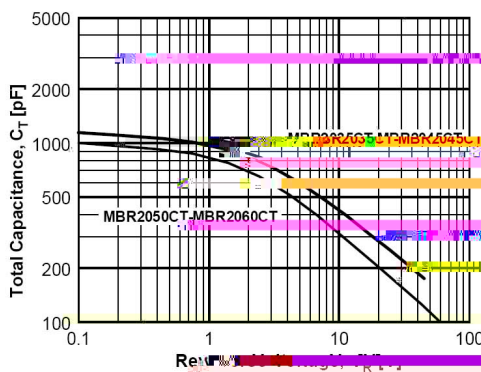
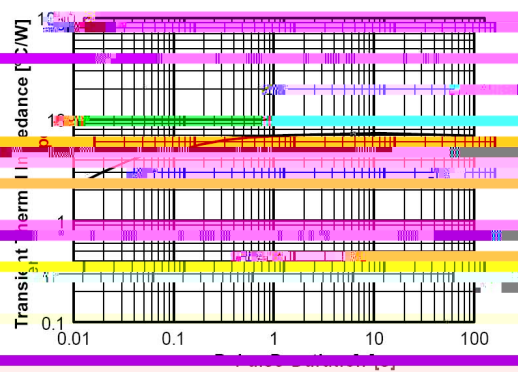
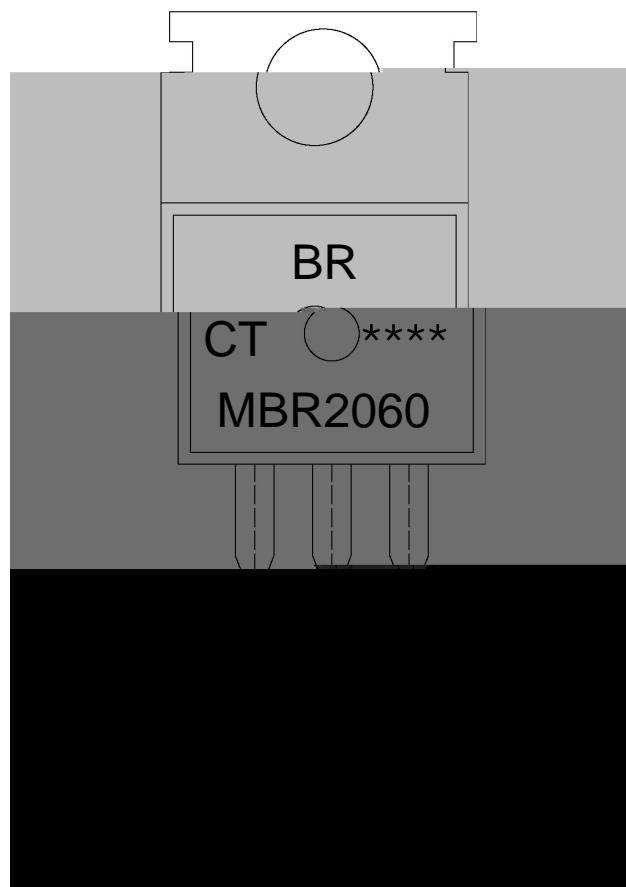


Figure 6. Thermal Impedance Characteristic



/ Marking Instructions



BR

MBR2060

CT:

Note:

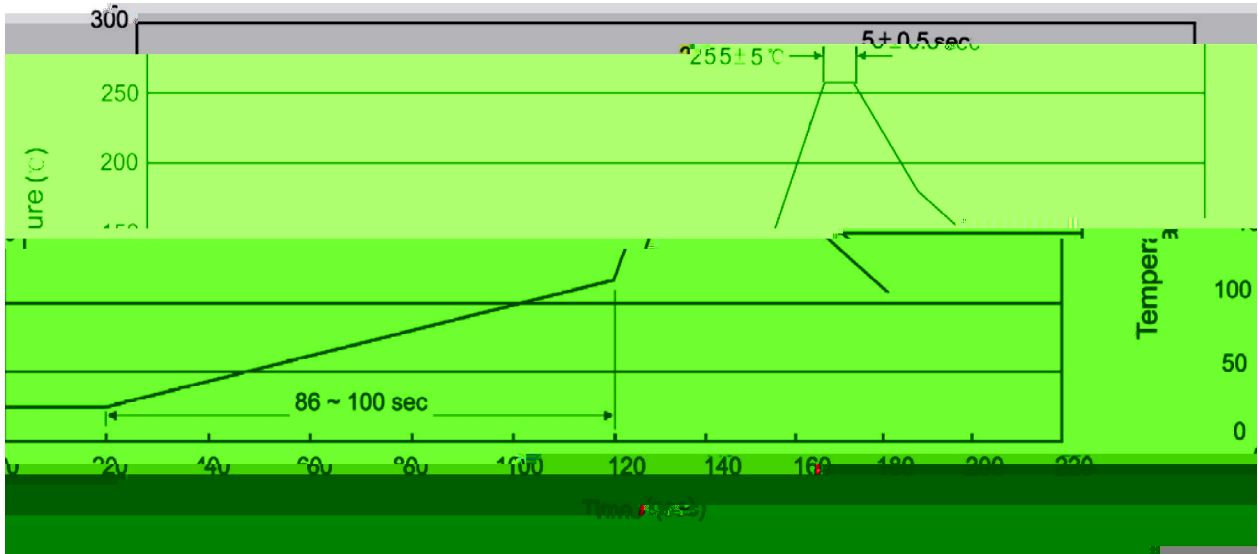
BR: Company Code

MBR2060 Product Type.

CT: Internal Structure

****: Lot No. Code, code change with Lot No.

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



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