

#### ■ Productor Character

- Half Bridge Rectified、Common Cathode Structure.
- Multilayer Metal -Silicon Potential Structure.
- Beautiful High Temperature Character.
- Have Over Voltage protect loop, high reliability.
- RoHs Product.

TO-247



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#### ■ Primary Use

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

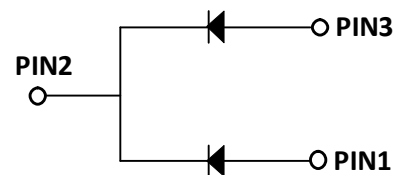
#### ■ Summarize

- MBR20200PT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply

Device Weight :

TO-247AB-6.3g

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### Absolute Maximum Ratings

| Item                                                                                  | Symbol | Data      | Unit |
|---------------------------------------------------------------------------------------|--------|-----------|------|
| Maximal Inverted Repetitive Peak Voltage                                              | VRRM   | 200       | V    |
| *Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle      | IFAV   | 20        | A    |
| Typical Thermal Resistance (per leg) Package =TO-220AB/TO-263<br>Package =ITO-220AB   | RθJc   | 2         | °C/W |
|                                                                                       |        | 4         | °C/W |
| Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method) | IFSM   | 150       | A    |
| Maximum Rate of Voltage Change ( at Rated VR )                                        | dv/dt  | 10000     | V/uS |
| Peak Repetitive Reverse Surge Current (2uS-1Khz)                                      | IRRM   | 1         | A    |
| Operating Junction Temperature                                                        | TJ     | -40- +175 | °C   |
| Storage Temperature                                                                   | TSTG   | -40- +175 | °C   |

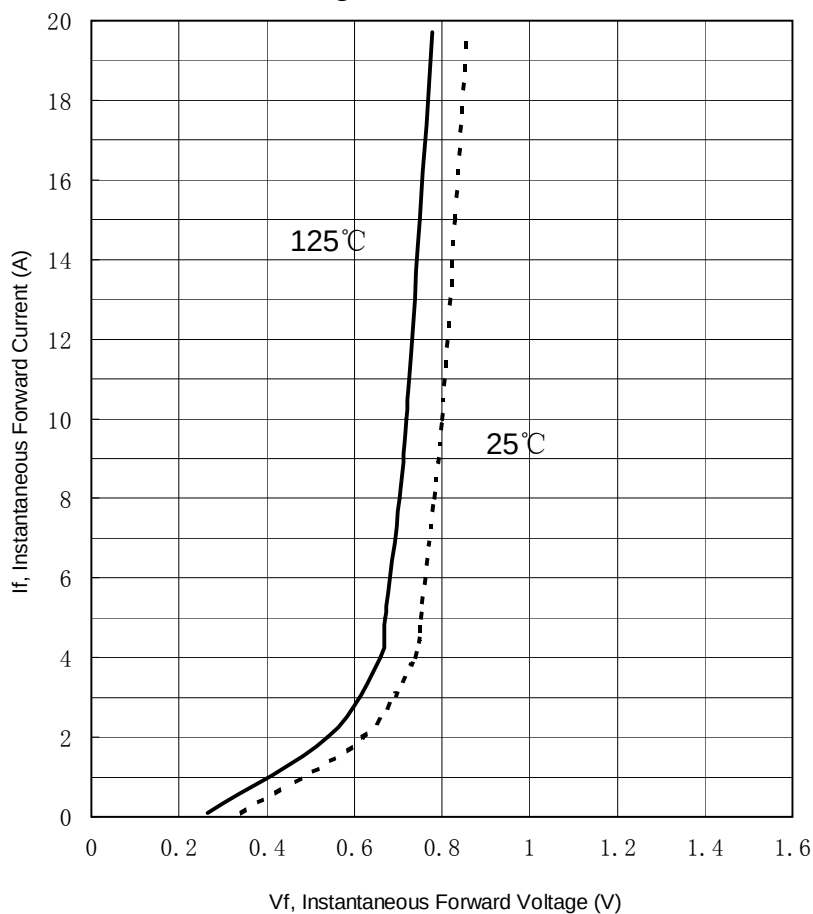
### Electricity Character

| Item | Test Condition |         | TYP. | MAX. | Unit |
|------|----------------|---------|------|------|------|
| IR   | TJ =25°C       | VR=VRRM |      | 10   | uA   |
|      | TJ =125°C      |         |      | 1    | mA   |
| VF   | TJ =25°C       | IF=10A  | 0.87 | 0.92 | V    |
|      | TJ =125°C      | IF=10A  |      | 0.85 | V    |

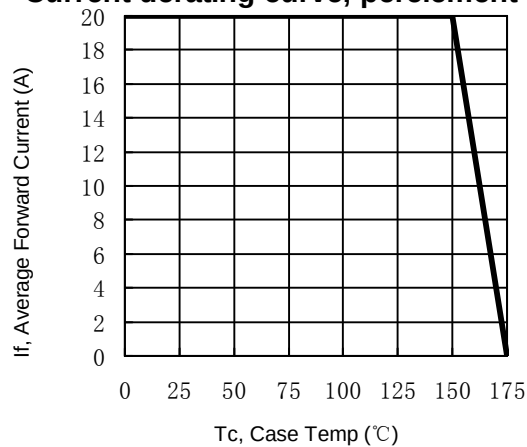
\*IF(AV)= 10A×2

## Characteristic Curves

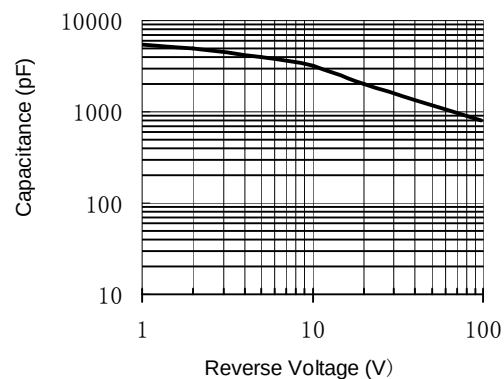
**The forward voltage and forward current curve**



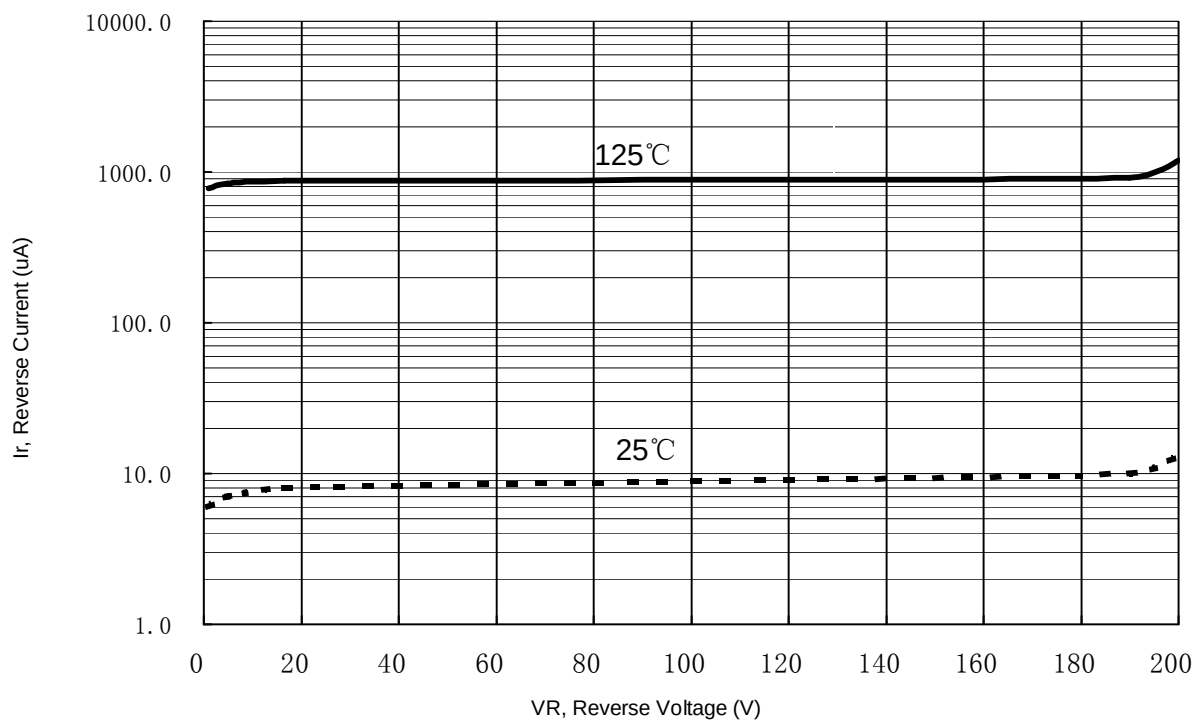
**Current derating curve, per element**



**The crunode capacitance curve**

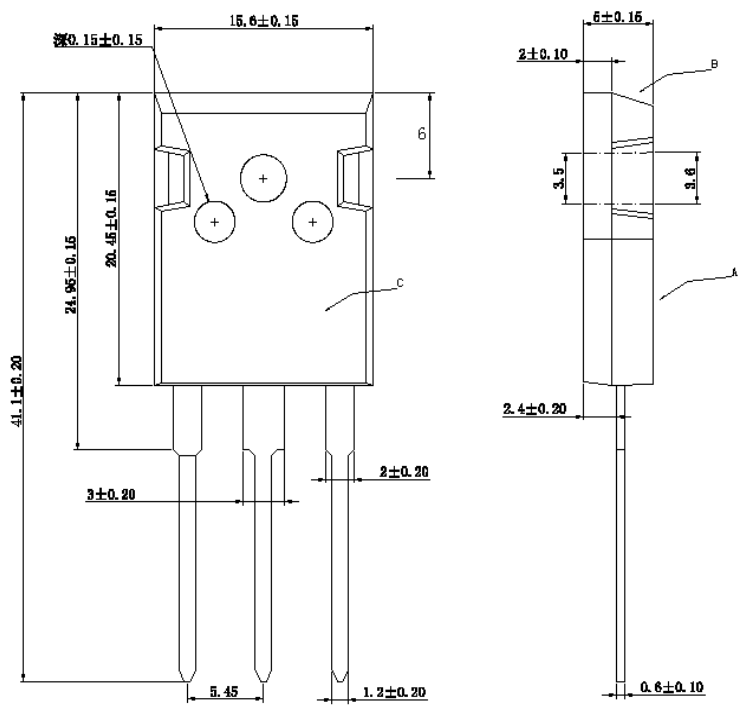


**The reverse leak current and the reverse voltage (single-device) curve.**



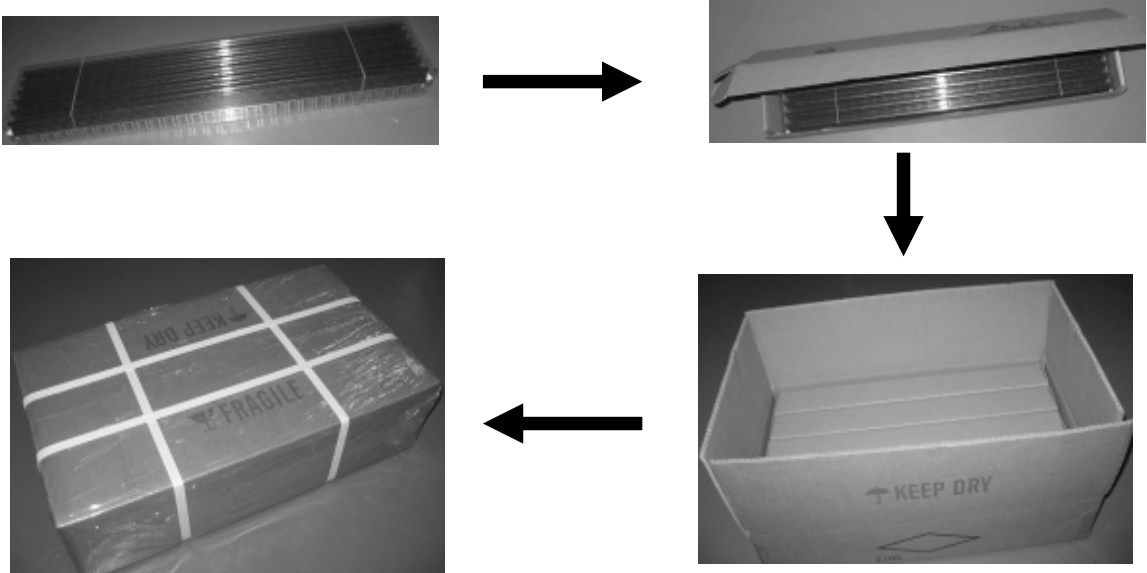
Package Outline Dimensions

TO-247



Packing Information

| Part Number | Package  | Delivery Mode    |
|-------------|----------|------------------|
| MBR20200PT  | TO-247AB | 30 pieces / tube |



| Part Number     | Quantity    | Size (mm)  |
|-----------------|-------------|------------|
| tube            | 30 pieces   | 495*46*8   |
| inner box       | 360 pieces  | 510*110*6  |
| outer container | 1800 pieces | 550*320*14 |

Marking



- 1.MHCHXM为LOGO。
- 2.MBR20200PT为产品型号。
- 3.XXXX代表日期码，第一码表示公元年的最后一码，第二码表示生产时当月码（A,B,C...为一月，二月，三月...),第三，四码表示大量生产时批次码  
例如:2013年第一月生产的，D/C为3AXX。

## Label

内盒标签（尺寸：125\*32mm）格式：



一维条码类型：CODE128； 二维条码类型：QR CODE

PART NO: 产品型号；

DATE CODE: 产品周号；

QTY: 实物数量；

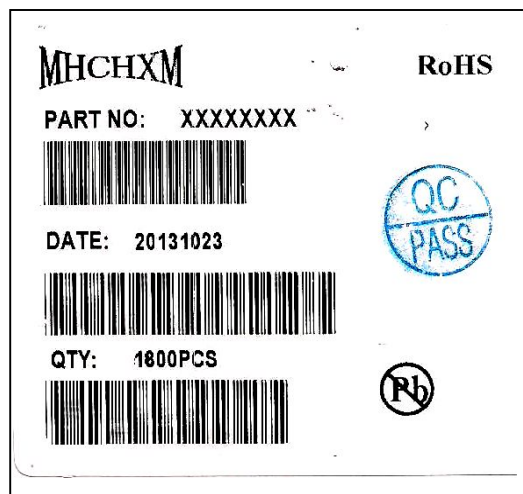
PACKAGE: 产品封装形式；

BOX NO: 箱号（产品追溯码），每盒号唯一与系统生产批号相关联。

二维码内容, 产品型号/产品周号/数量/箱号，

例如：XXXXXXXX/3J43/1000/20130615001016

外箱标签（尺寸：75\*64mm）格式：



PART NO: 产品型号；

DATE: 产品包装日期；

QTY: 产品数量。

## 注意事项

- 1) 凡本公司出厂的产品，均符合相应规格书的电参数和外形尺寸要求；对于客户有特殊要求的产品, 双方应签订相关技术协议。
- 2) 在安装时，要注意减少机械应力的产生，安装扭矩推荐值0.3牛/米，防止由此引起的产品失效。
- 3) 避免靠近发热元件；焊接上锡时要注意控制温度和时间，焊接温度小于260℃，10S。
- 4) 产品储存需注温度与湿度的控制，一般情况下，温度在5℃-25℃，湿度50%条件下，可存放一年，过保存期后，使用前需重新测试。
- 5) 静电及高压会对产品产生损坏，使用和检验产品时，佩戴防静电腕带或手套，设备工具可靠接地。