

### ■ 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.

### ■ Primary Use

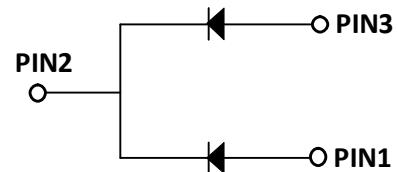
- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

### ■ Summarize

- MBR10100CT/MBR10100FCT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Device Weight :

ITO-220AB-1.48g TO-220AB-1.96g TO-263-1.78g



## Absolute Maximum Ratings

| Item                                                                                  | Symbol           | Data      | Unit |
|---------------------------------------------------------------------------------------|------------------|-----------|------|
| Maximal Inverted Repetitive Peak Voltage                                              | VRRM             | 100       | V    |
| *Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle      | IFAV             | 10        | A    |
| Typical Thermal Resistance (per leg) Package =TO-220AB/TO-263<br>Package =ITO-220AB   | R <sub>θJc</sub> | 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             | 0.5       | A    |
| Operating Junction Temperature                                                        | TJ               | -40- +150 | °C   |
| Storage Temperature                                                                   | TSTG             | -40- +150 | °C   |

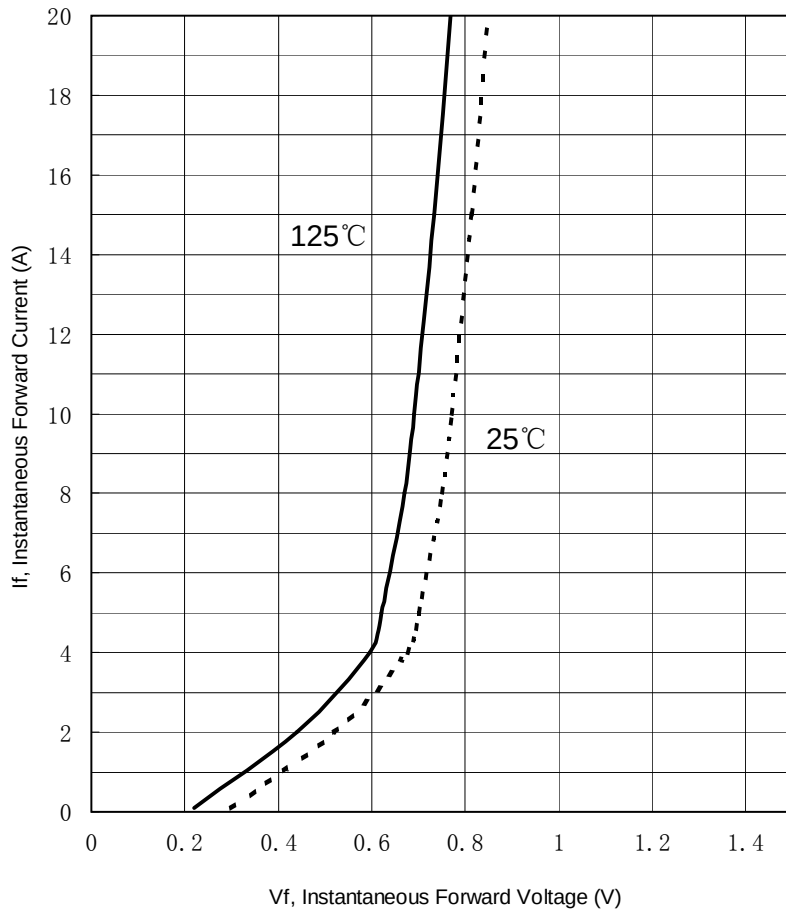
## Electricity Character

| Item | Test Condition |         | TYP. | MAX. | Unit |
|------|----------------|---------|------|------|------|
| IR   | TJ =25°C       | VR=VRRM |      | 10   | uA   |
|      | TJ =125°C      |         |      | 1    | mA   |
| VF   | TJ =25°C       | IF=5A   | 0.79 | 0.83 | V    |
|      | TJ =125°C      | IF=5A   |      | 0.76 | V    |

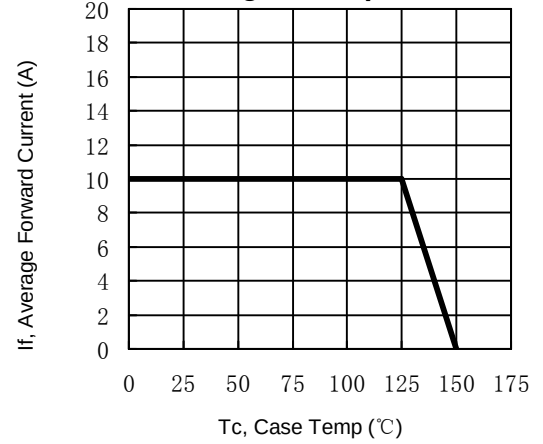
\*IF(AV)= 5A×2

### Characteristic Curves

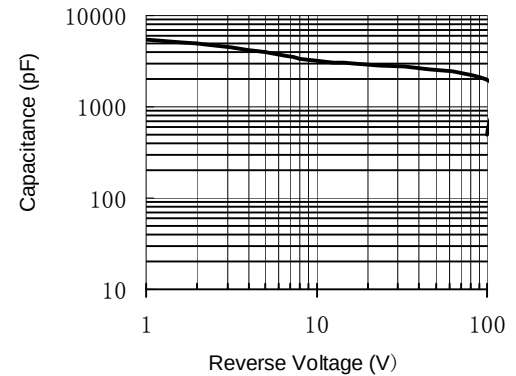
The forward voltage and forward current curve



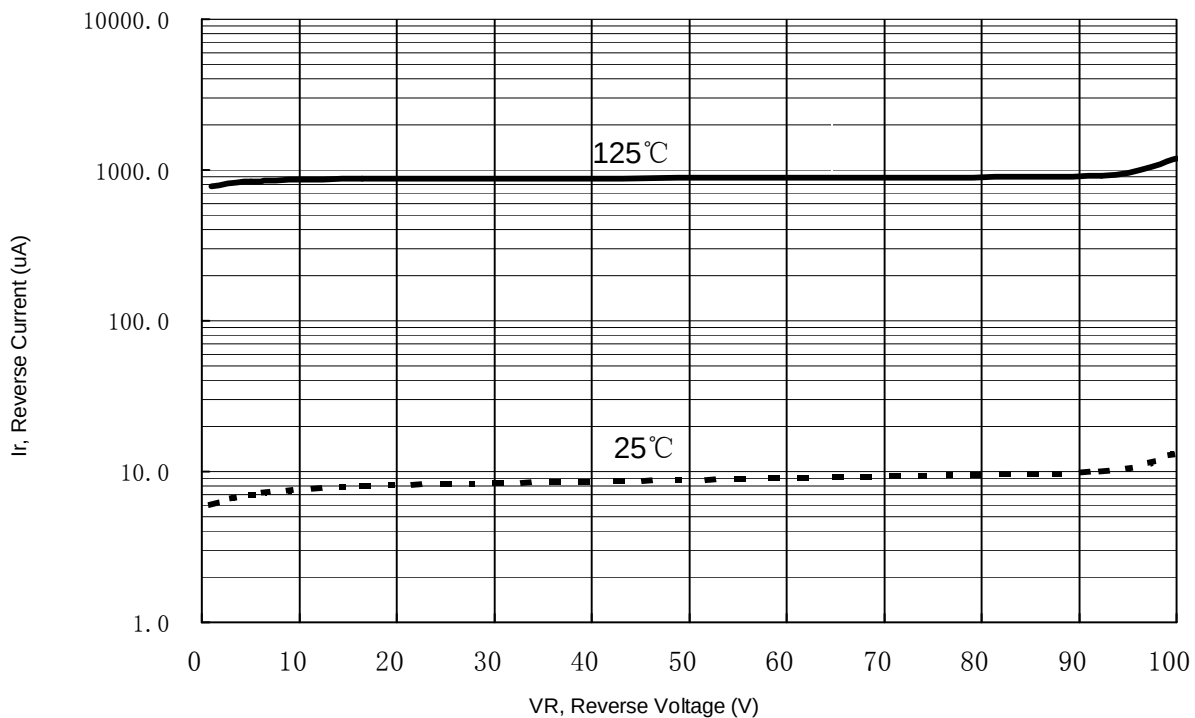
Current derating curve, per element

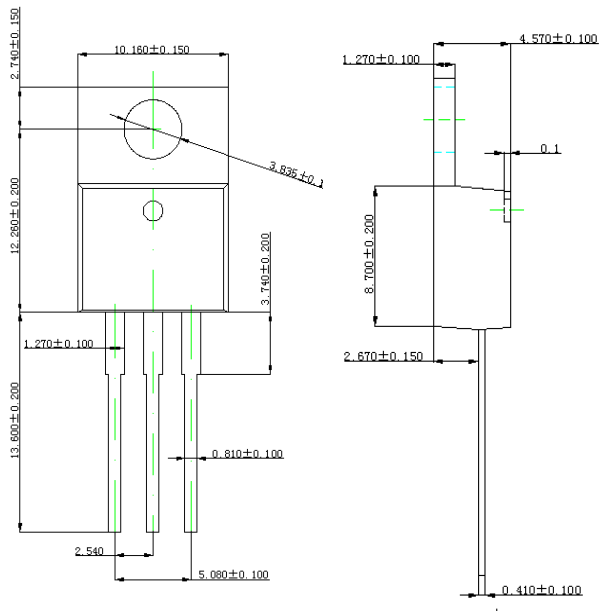
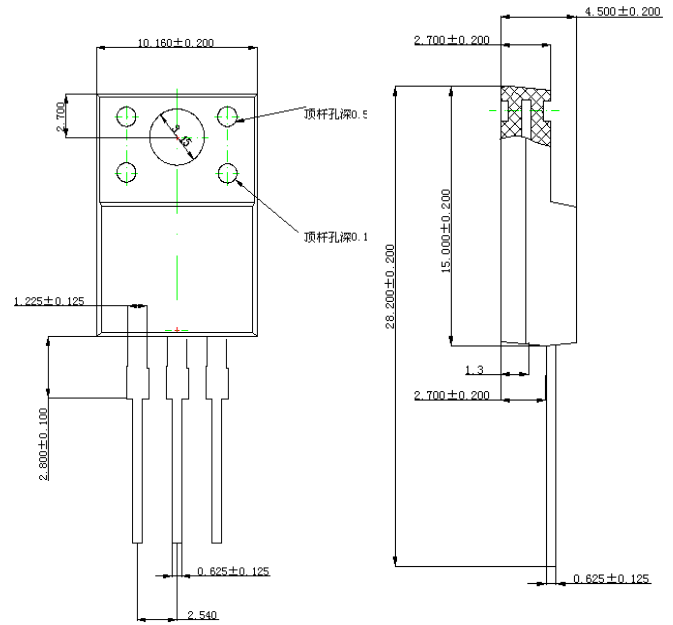
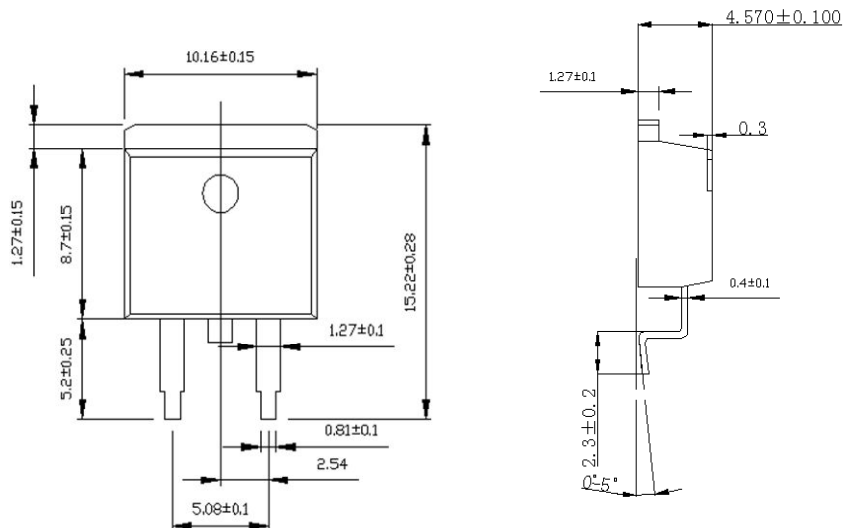


The crunode capacitance curve



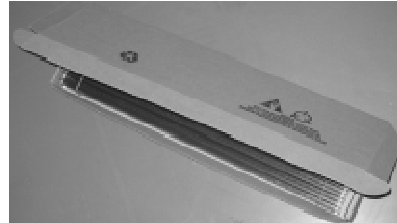
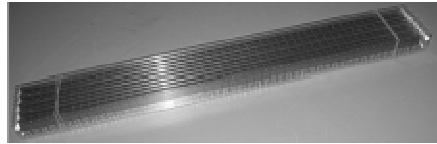
The reverse leak current and the reverse voltage (single-device) curve.



**Package Outline Dimensions****TO-220****ITO-220****TO-263**

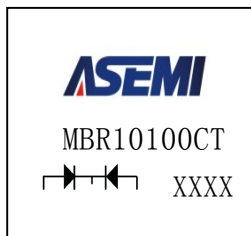
### Packing Information

| Part Number | Package       | Delivery Mode    |
|-------------|---------------|------------------|
| MBR10100CT  | TO-220/TO-263 | 50 pieces / tube |
| MBR10100FCT | ITO-220       | 50 pieces / tube |



| Part Number     | Quantity    | Size (mm)   |
|-----------------|-------------|-------------|
| tube            | 50 pieces   | 530*33*7    |
| inner box       | 1000 pieces | 560*150*40  |
| outer container | 5000 pieces | 580*230*170 |

### Marking



- 1.ASEMI 为LOGO。
- 2.MBR10100CT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。
4. ITO-220封装后面加“F”区别



# High-Voltage Schottky Diodes

MBR10100CT/MBR10100FCT

## Label

内盒标签（尺寸：125\*32mm）格式：

PART NO.: XXXXXX



DATE: 20140526 DE27



Q'TY: 1000 PCS



RoHS



PART NO: 产品型号;

DATE CODE:产品周号;

QTY:实物数量;

例如: XXXXXXXX/3J43/1000/20130615001016

外箱标签（尺寸：75\*64mm）格式：



RoHS

PART NO.: XXXXXX



DATE: 20140526 DE27



Q'TY: 5000 PCS



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。