

### ■ 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

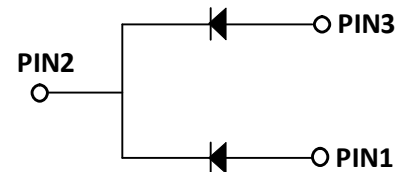
- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

### ■ Summarize

- MBR40100CT/MBR40100FCT/MBR40100CD 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	40	A
Typical Thermal Resistance (per leg Package =TO-220AB/TO-263 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	200	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

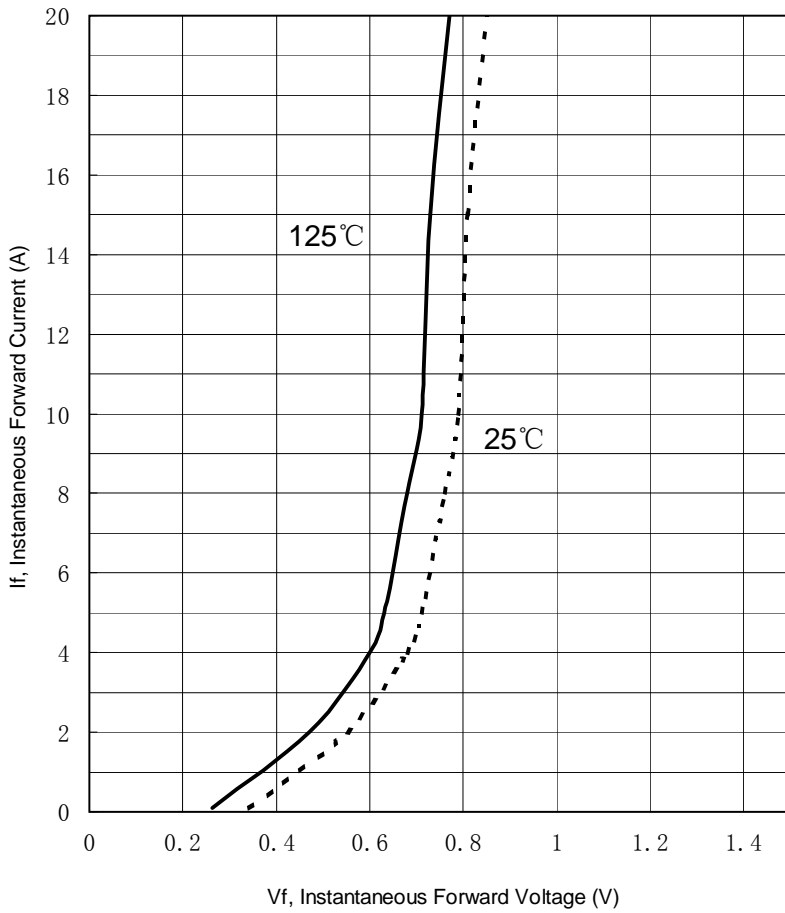
### Electricity Character

Item	Test Condition		TYP.	MAX.	Unit
IR	TJ =25°C	VR=VRRM		10	uA
	TJ =125°C			1	mA
VF	TJ =25°C	IF=20A	0.87	0.9	V
	TJ =125°C	IF=20A		0.75	V

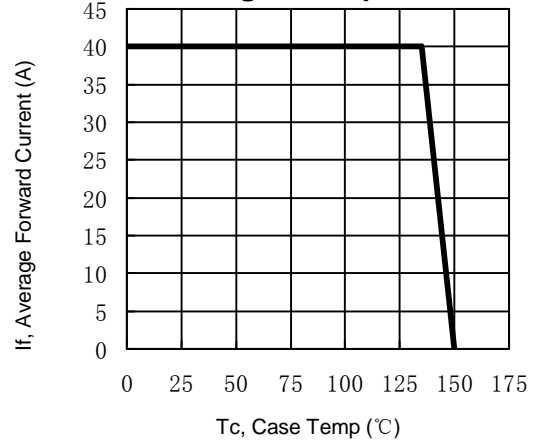
\*IF(AV)= 20Ax2

**Characteristic Curves**

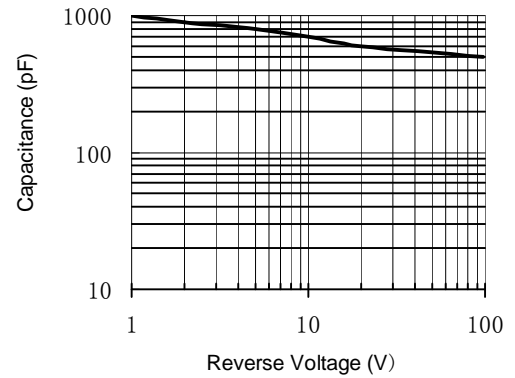
**The forward voltage and forward current curve**



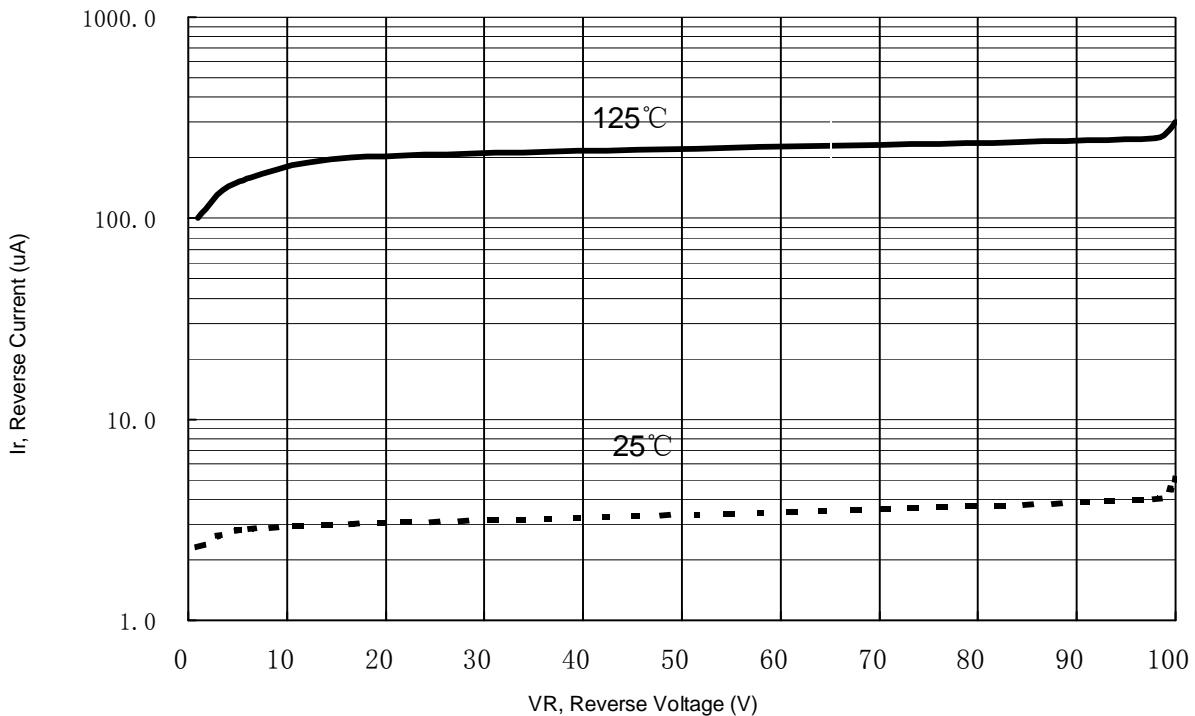
**Current derating curve, per element**



**The crunode capacitance curve**

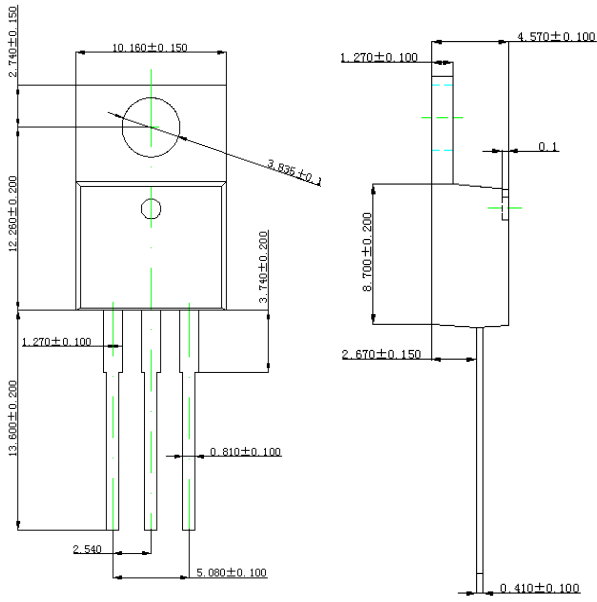


**The reverse leak current and the reverse voltage (single-device) curve.**

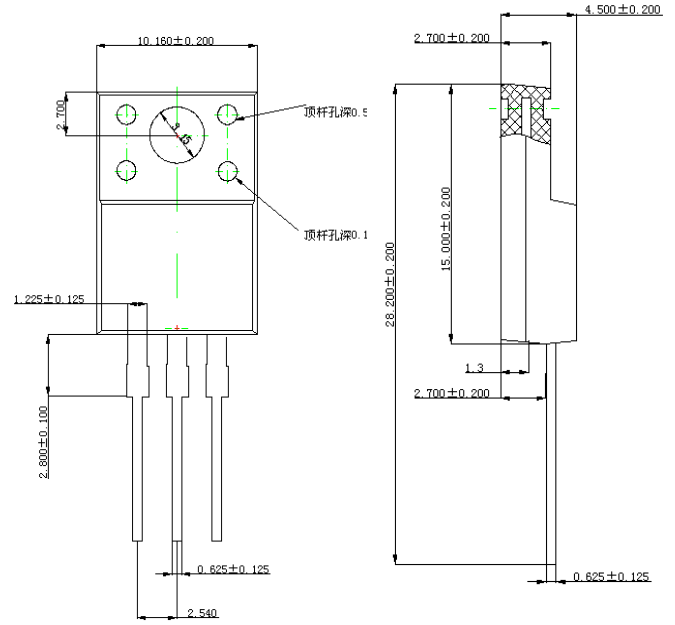


**Package Outline Dimensions**

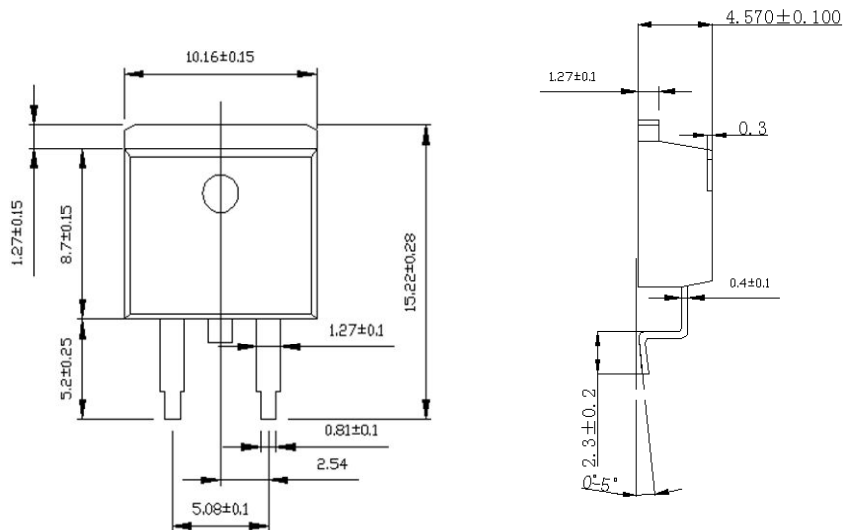
**TO-220**



**ITO-220**

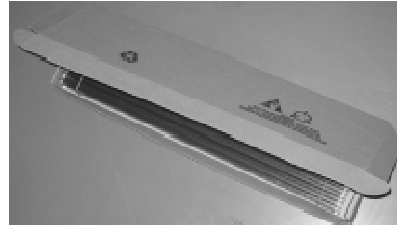
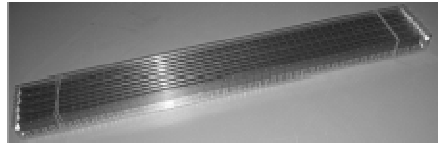


**TO-263**



**Packing Information**

Part Number	Package	Delivery Mode
MBR40100CT/MBR40100CD	TO-220/TO-263	50 pieces / tube
MBR40100FCT	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.MBR40100CT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.TO-263封装后面加“CD”区别。

**Label**

内盒标签（尺寸：125\*32mm）格式：

**PART NO.: XXXXXX****DATE: 20140526 DE27****Q'TY: 1000 PCS****ASEMI**

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：

**ASEMI**

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。