

■ Product 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

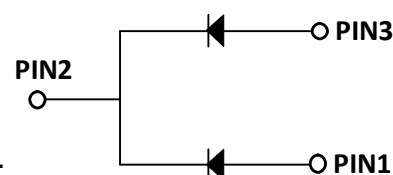
- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

■ Summarize

- MBR4045PT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Device Weight :

TO-247AB-6.3g



Absolute Maximum Ratings

Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	VRRM	45	V
*Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	IFAV	40	A
Typical Thermal Resistance (per leg) Package =TO-247AB	R _{θJc}	1.5	°C/W
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	IFSM	400	A
Maximum Rate of Voltage Change (at Rated VR)	dv/dt	10000	V/uS
Peak Repetitive Reverse Surge Current (2uS-1Khz)	IRRM	3	A
Operating Junction Temperature	TJ	-40- +150	°C
Storage Temperature	TSTG	-40- +150	°C

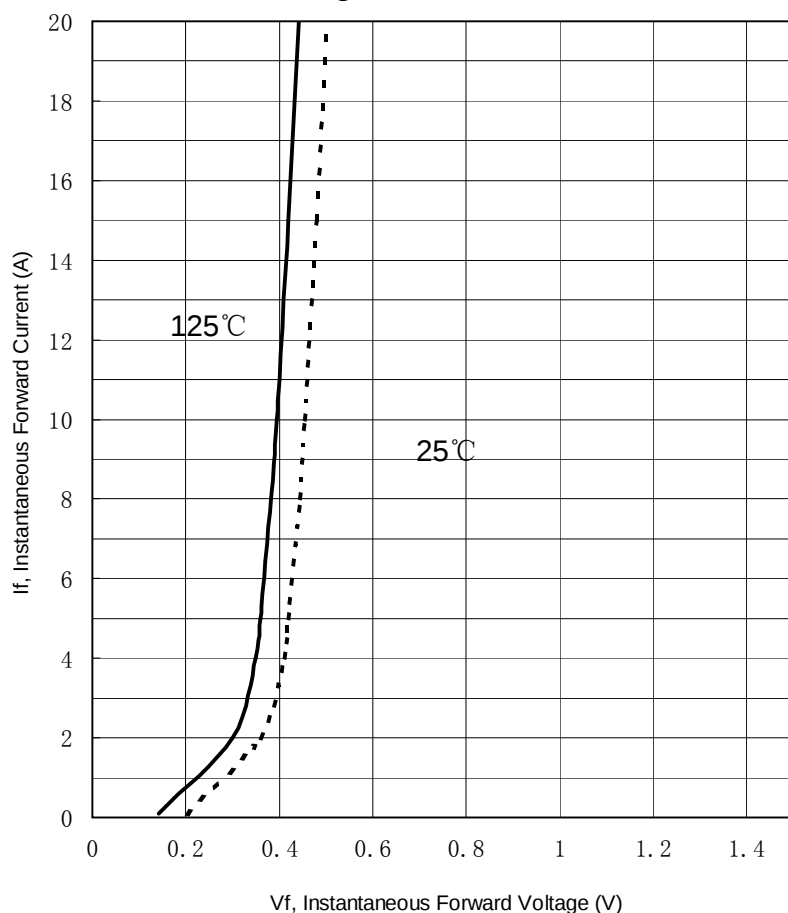
Electricity Character

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	0.55	0.63	V
	TJ =125°C	IF=20A		0.5	V

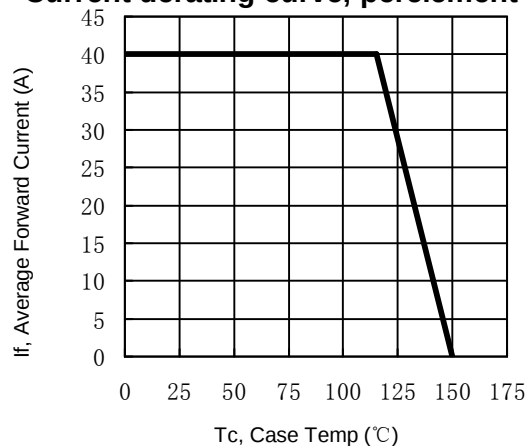
*IF(AV)= 20A×2

Characteristic Curves

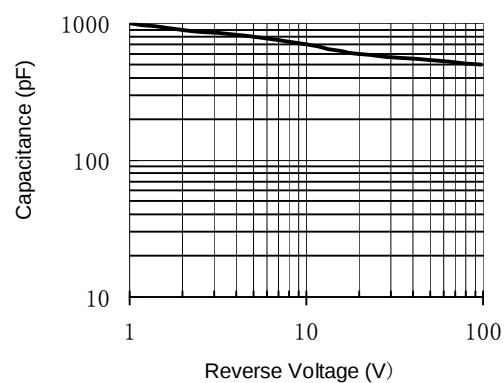
The forward voltage and forward current curve



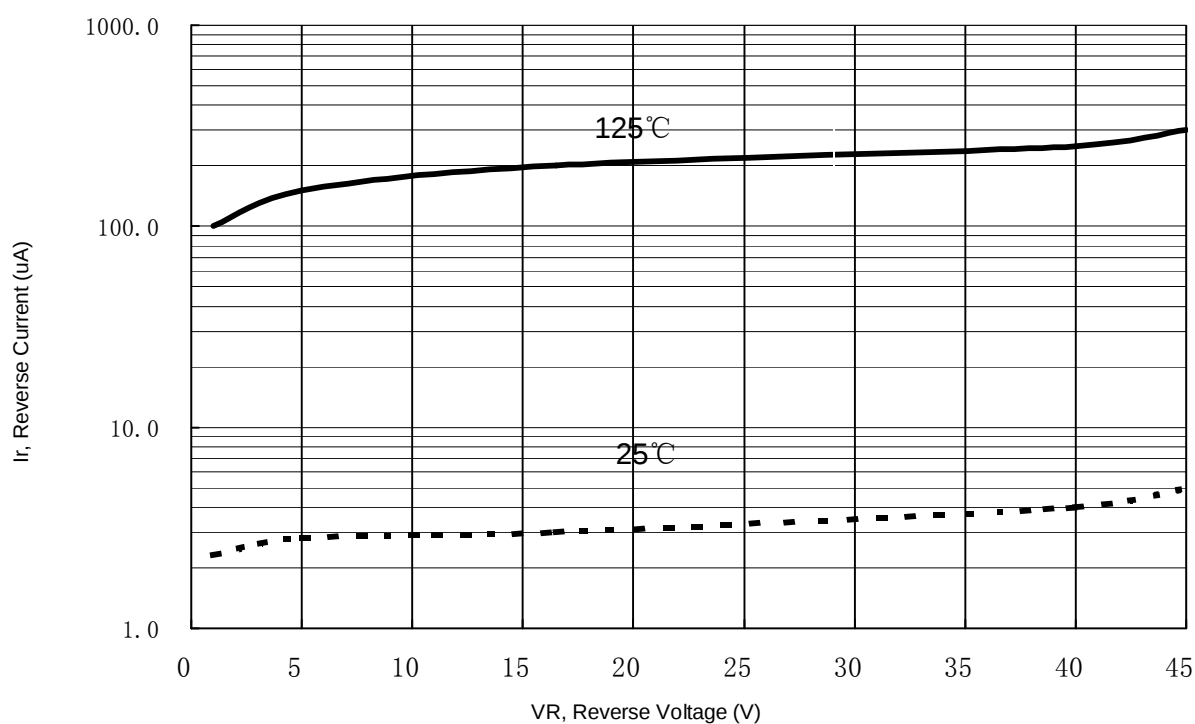
Current derating curve, per element



The crunode capacitance curve

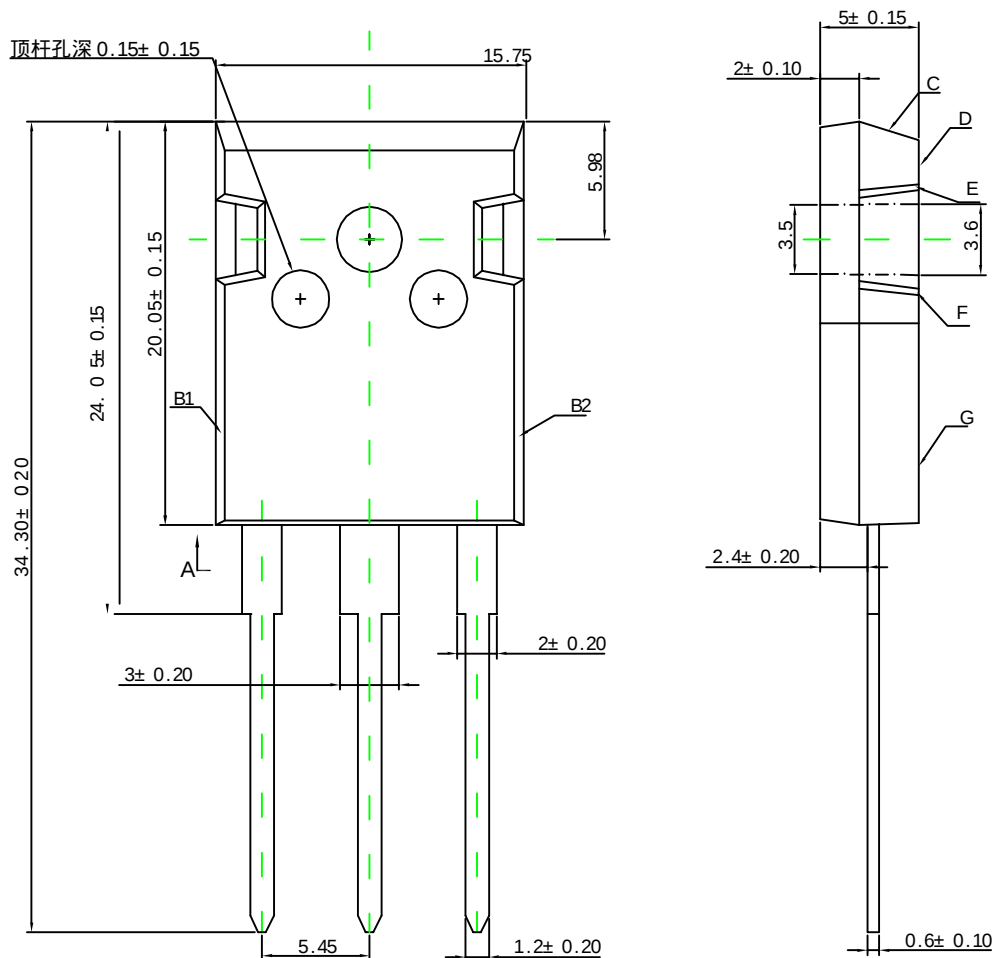


The reverse leak current and the reverse voltage (single-device) curve.



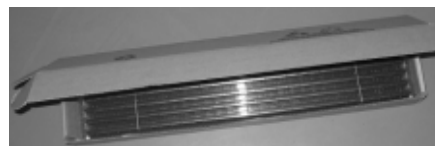
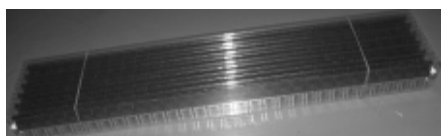
Package Outline Dimensions

TO-247



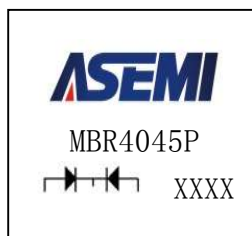
Packing Information

Part Number	Package	Delivery Mode
MBR4045PT	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.ASEMI为LOGO。
- 2.MBR4045PT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。

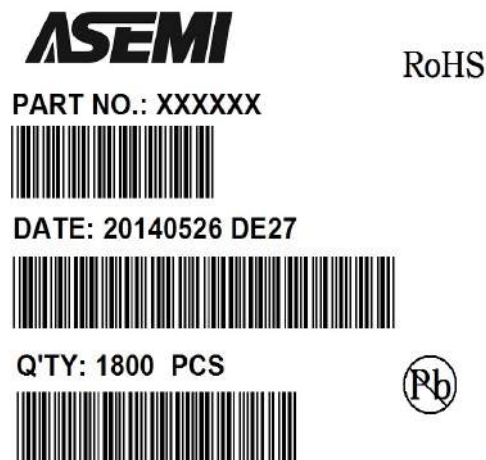
Label

内盒标签（尺寸：125*32mm）格式：



PART NO: 产品型号;
DATE CODE: 产品周号;
QTY: 实物数量;
例如: XXXXXXXXX/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。