High-Voltage Schottky Diodes MBR4045PT

■ 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.

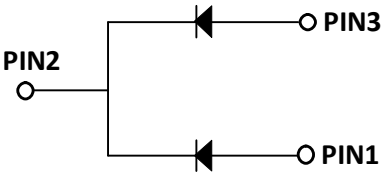
TO-247



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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

- 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	$R_{\theta Jc}$	1.5	℃/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	℃
Storage Temperature	TSTG	-40- +150	℃

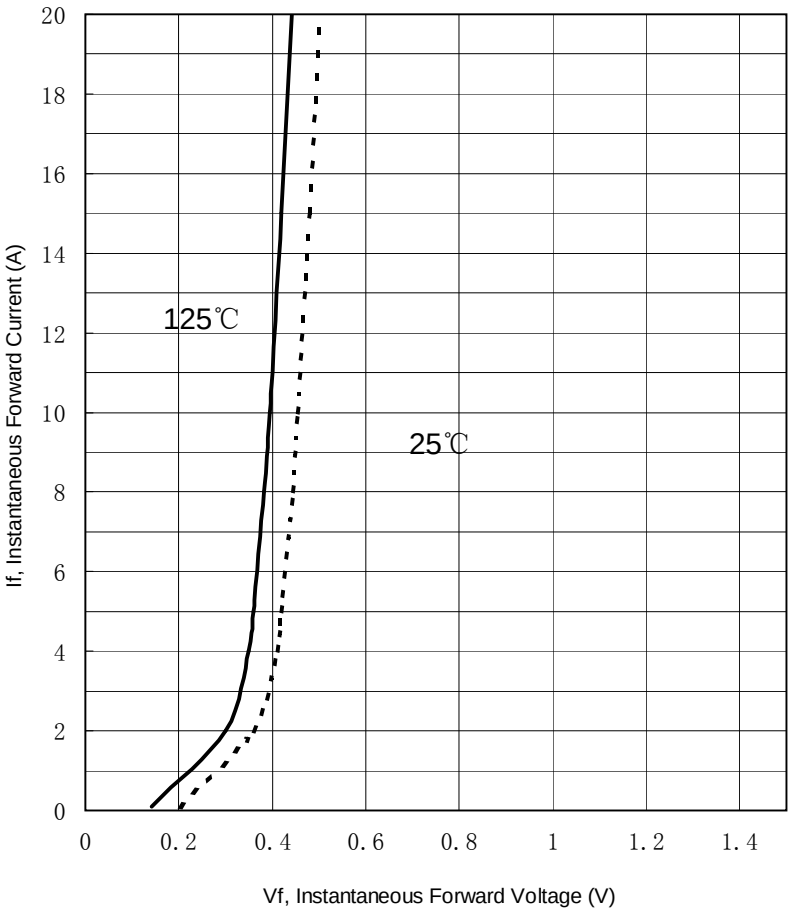
Electricity Character

Item	Test Condition		TYP.	MAX.	Unit
IR	TJ =25℃	VR=VRRM		10	uA
	TJ =125℃			1	mA
VF	TJ =25℃	IF=20A	0.55	0.63	V
	TJ =125℃	IF=20A		0.5	V

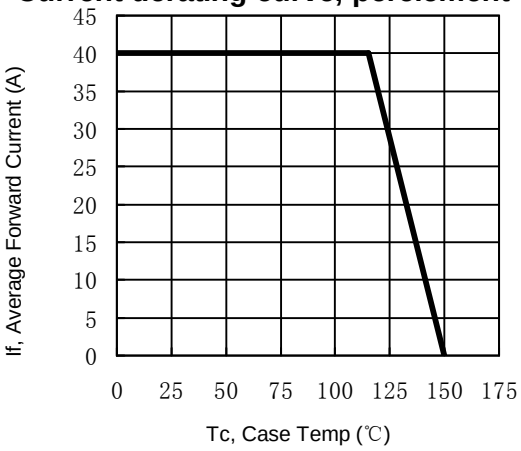
*IF(AV)= 20A×2

Characteristic Curves

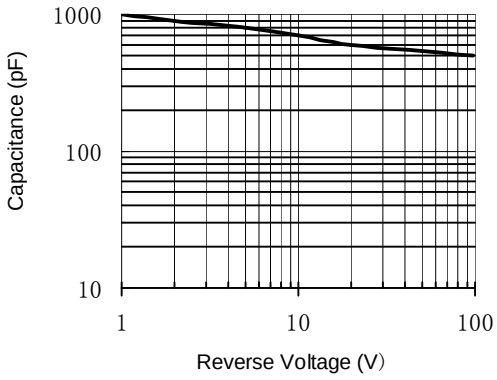
The forward voltage and forward current curve



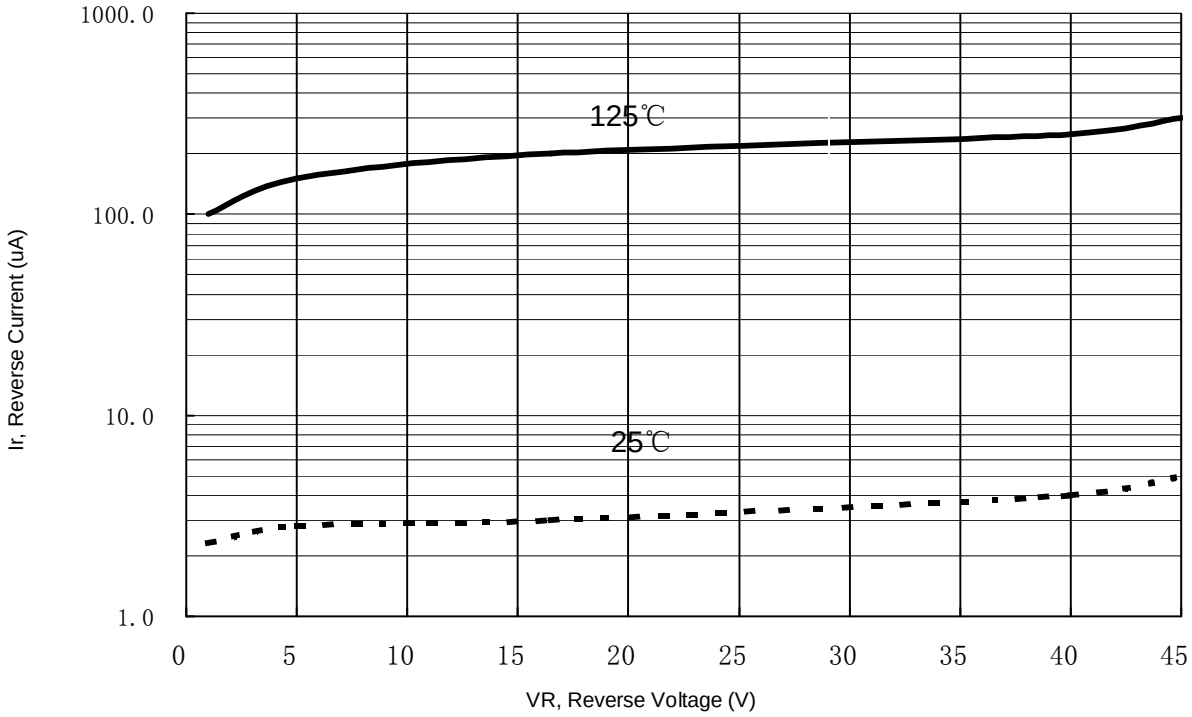
Current derating curve, perelement



The crunode capacitance curve

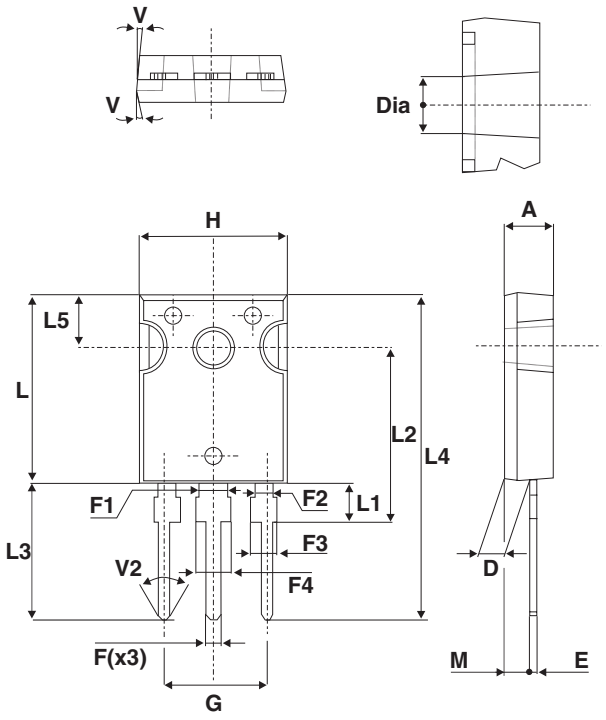


The reverse leak current and the reverse voltage (single-device) curve.



Package Outline Dimensions

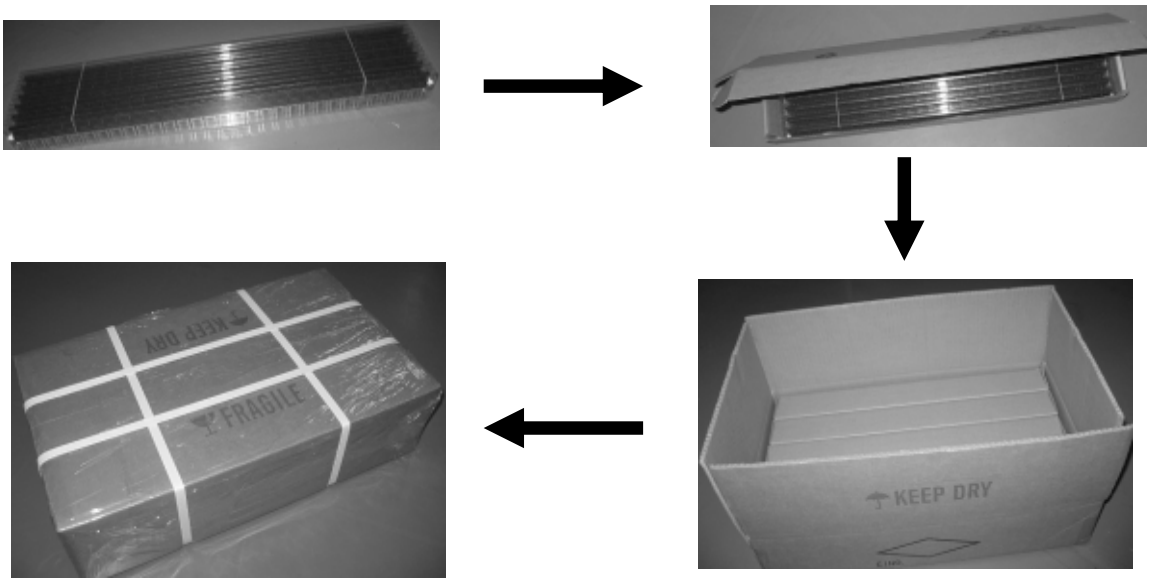
TO-247/3PAB



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.85		5.16	0.191		0.203
D	2.20		2.60	0.086		0.102
E	0.40		0.80	0.015		0.031
F	1.00		1.40	0.039		0.055
F1		3.00			0.118	
F2		2.00			0.079	
F3	1.90		2.40	0.075		0.094
F4	3.00		3.40	0.118		0.134
G		10.90			0.429	
H	15.45		16.03	0.608		0.631
L	19.85		21.09	0.781		0.830
L1	3.70		4.30	0.146		0.169
L2	18.30		19.13	0.720		0.753
L3	14.20		20.30	0.559		0.799
L4	34.05		41.38	1.341		1.629
L5	5.35		6.30	0.211		0.248
M	2.00		3.00	0.079		0.118
V		5°			5°	
V2		60°			60°	
Dia.	3.55		3.65	0.140		0.144

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。

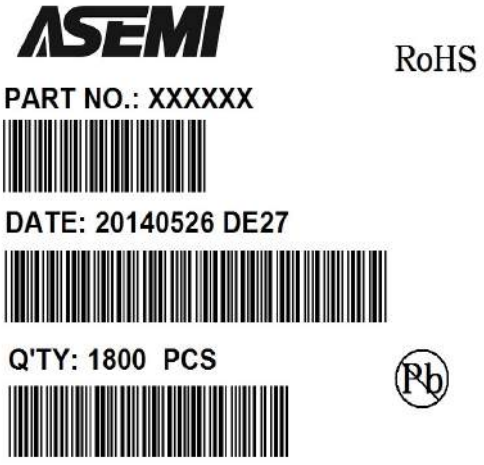
Label

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：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。