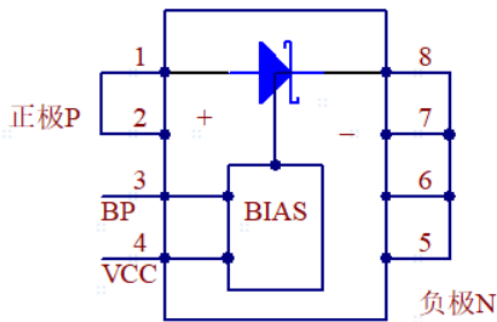


# BM08L100有源续流二极管

## ACTIVE LOW VF SCHOTTKY RECTIFIER



**BM08L100**

### FEATURES

- Low forward voltage **0.05V**
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

支持并适应PWM或PFM所有的振荡模式

有源续流二极管，支持到8A，压降**0.05V**

支持DC-DC的SW脚开关频率到200KHZ

VCC支持+5V，+9V，+12V，+19V供电

用有源续流二极管可以大幅度提高异步DCDC效率（3%左右 @5A），减低系统热量

反向耐压100V，VCC耐压+25V，BP脚耐压7V

### Primary Characteristic

$I_o$	8A
$V_{RRM}$	100V
$I_{FSM}$	1A
$V_F$	<b>0.05V</b>
$T_{jmax}$	150°C

### Maximum Ratings at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	$I_o$	10	A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	1	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1) SOP8	$R_{\theta JC}$	3	°C/W

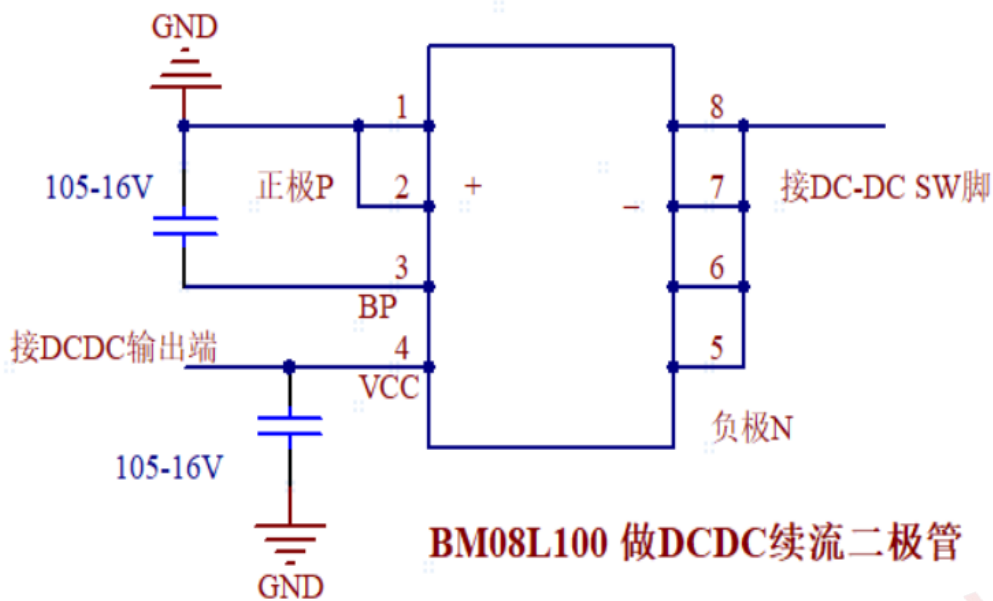
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		$V_F$	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.04	-	
	TA=125°C		0.043	-	
at $I_F=5A$	TA=25°C		0.061	0.58	
	TA=125°C		0.08	-	
at $I_F=8A$	TA=25°C		0.08	0.70	
	TA=125°C	0.08	-		
Maximum Reverse Current at $V_R=100V$	TA=25°C	$I_R$	5	50	µA
	TA=125°C		5	-	mA

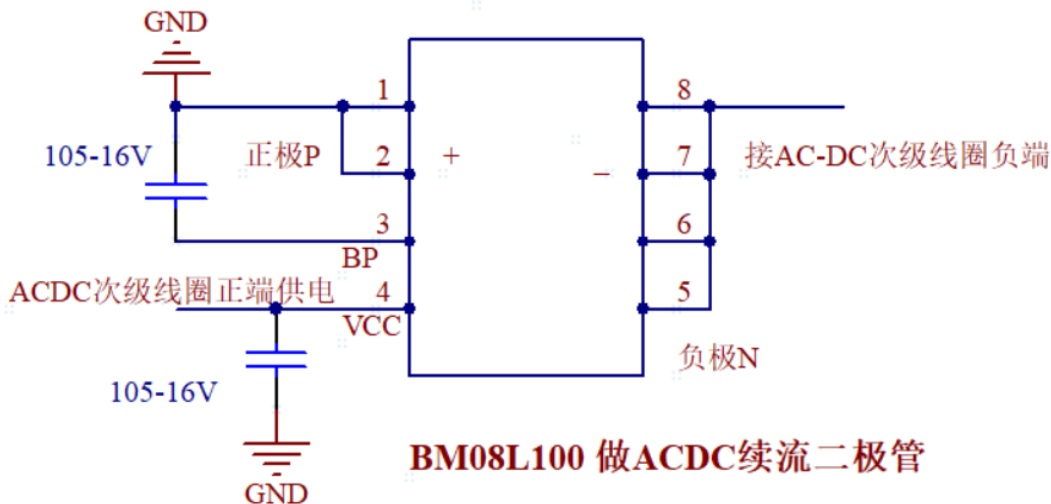
Note2:Pulse test: 300 µs pulse width, 1 % duty cycle

APPLICATION CIRCUITS :



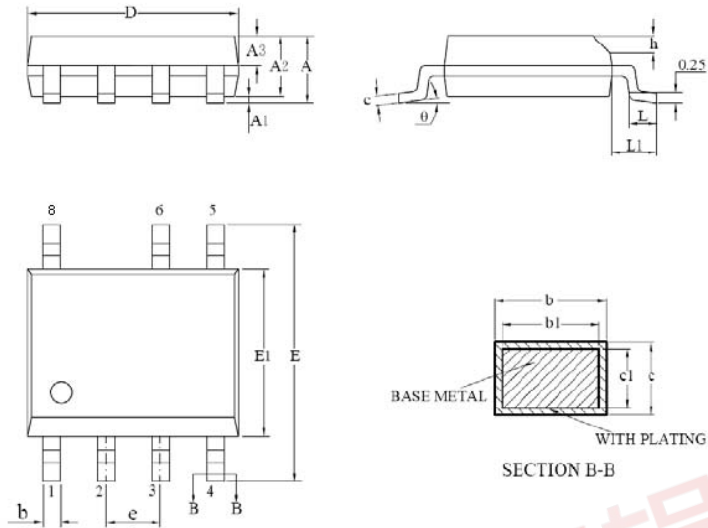
NOTE1 : 如果需要大的反向电流，一八脚间并一个肖特基1A-100V二极管，负极并负极；  
 如果DCDC输出+12V，如上图直接给BM08L100第四脚供电；如果DCDC输出+30V，  
 用BM6203产生+12V再给BM08L100第四脚供电。

NOTE2 : 由于BM08L100支持并适应DC-DC或AC-DC所有的工作振荡模式，所以不会对系统造成不稳定，可在DC-DC电路上替代肖特基二极管，支持到输出+12V 8A或24V-5A  
 利用PCB正反两面大面积敷铜帮助芯片1-2脚与5-8脚散热，扩大散热面积与能力  
 也可用于AC-DC的次级续流，输出+12V-4A



封装信息

SOP-8 封装外形及尺寸



尺寸 符号	最小(mm)	正常(mm)	最大(mm)	尺寸 符号	最小(mm)	正常(mm)	最大(mm)
A	—	—	1.75	D	4.70	4.90	5.10
A1	0.10	0.15	0.225	E	5.80	6.00	6.20
A2	1.30	1.40	1.50	E1	3.70	3.90	4.10
A3	0.60	0.65	0.70	e	1.27BSC		
b	0.39	—	0.48	h	0.25	—	0.50
b1	0.38	0.41	0.43	L	0.50	—	0.80
c	0.21	—	0.26	L1	1.05BSC		
c1	0.19	0.20	0.21	θ	0°	—	8°