

## 特点

- \* 输入输出不隔离降压型变换器
- \* 3.3V 或 5V 标称输入电压,6A 标称输出负载
- \* 外形尺寸: 50.8 × 12.7 × 8.3 mm
- \* 高效率、高功率密度



## Features

- \* Non-isolated Buck Converter
- \* 3.3V or 5V Nominal Input Voltage, 6A Output Current
- \* Size: 2.0 × 0.5 × 0.33 inch
- \* High Efficiency, High Power Density

输入特性 (Input)		注释 (Notes and Conditions)
输入电压范围 (Input Voltage Range)	3.0~5.5Vdc	6.5Vdc Max
遥控功能 (Remote On/Off Function)		
负逻辑 (Negative Logic)	开启 (On)	低电平 (-0.7~1.2Vdc/1mA) 或悬空 (Low Level (-0.7~1.2Vdc/1mA) or Open Circuit)
	关闭 (Off)	高电平 (2.8~12Vdc/1mA) 相对于 GND (High Level (2.8~12Vdc/1mA) Reference to GND)

输出特性 (Output)		注释 (Notes and Conditions)
输出电压精度 (Voltage Set-Point Accuracy)	± 1%	V <sub>inom</sub> and I <sub>onom</sub>
源效应 (Line Regulation)	± 0.5% V <sub>o</sub>	V <sub>imin</sub> ~V <sub>imax</sub> , I <sub>onom</sub>
负载效应 (Load Regulation)	± 0.5% V <sub>o</sub>	0~100% I <sub>onom</sub> , V <sub>inom</sub>
输出电压调节范围 (Output Voltage Trim Range)	± 16%	
故障告警功能 (PRGOOD Pin Function)	工作正常时 PRGOOD 端相对于地高电平 (3.0-5.5Vdc) Normal: High Level (3.0-5.5Vdc) Reference to GND	
输出过流保护点 (Current Limit Threshold Range)	≥ 7A	
短路保护 (Short-Circuit Protection)	连续可恢复 (Continuous, Automatic Recovery)	
瞬态响应 (Dynamic Response)		
过冲幅度 (Peak Deviation)	≤ 100mV	25%-50%-25% of I <sub>onom</sub> , V <sub>in</sub> =V <sub>inom</sub>
恢复时间 (Settling Time)	≤ 100 μs	and 50%-75%-50% of I <sub>onom</sub> , V <sub>in</sub> =V <sub>inom</sub>

一般特性 (General)		注释 (Notes and Conditions)
温度系数 (Temperature Coefficient)	± 0.02%/°C	
相对湿度 (Relative Humidity)	≤ 90%RH, (40 ± 2) °C	
工作环境温度 (Operating Ambient Temperature) <sup>1</sup>	-25 °C ~ +55 °C	
贮存温度 (Storage Temperature)	-40 °C ~ +125 °C	
开关频率 (Switching Frequency)	400kHz	
冷却方式 (Cooling)	自然冷却 (Natural Convection)	或强制风冷 (or Forced Convection)
平均故障间隔时间 (MTBF)	2 × 10 <sup>5</sup> h	MIL-HDBK-217
重量 (Weight)	6.5g	

注: 除非另有说明, 指标一般在标称输入电压、满载和 25°C 环境温度下测得。

Note: All specifications are typical at nominal input, full load at 25°C unless otherwise stated.

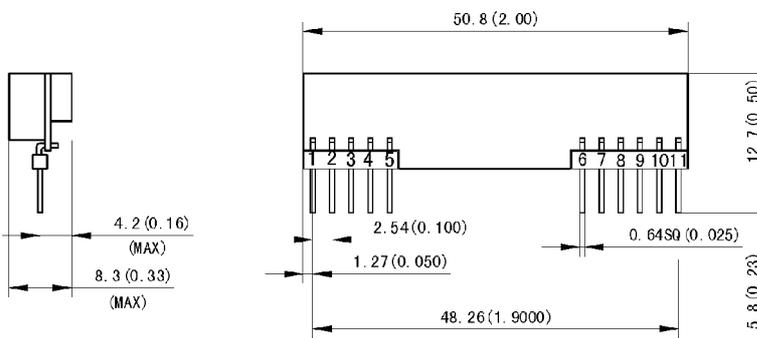
1 参见降额曲线图 (Reference to Derating Curve)

## 型号列表 (Models)

产品型号 (Model Number)	标称输入电压 (Input Voltage) Vdc	标称输出电压 (Output Voltage) Vdc	标称负载 (Output Current) A	额定输出功率 (Output Power) W	效率 (Efficiency) %	输出杂音电压峰值 (Ripple and Noise) mVp-p
BSN6A-4S1V5	3.3 or 5.0	1.50	6.00	9	81	50
BSN6A-4S1V8	3.3 or 5.0	1.80	6.00	10.8	83	50

## 安装尺寸 (Mechanical Drawing)

尺寸单位是 mm(inches); All Dimensions in mm (inches)

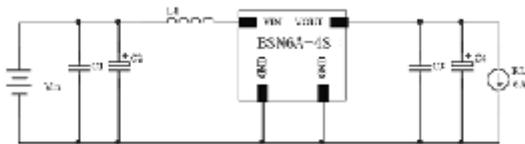


引脚定义 (Pin Definition)	
引脚 (Pin)	单路 (Single)
1	+Vout
2	+Vout
3	Sense
4	+Vout
5	GND
6	GND
7	+Vin
8	+Vin
9	PRGOOD
10	Trim
11	Rem

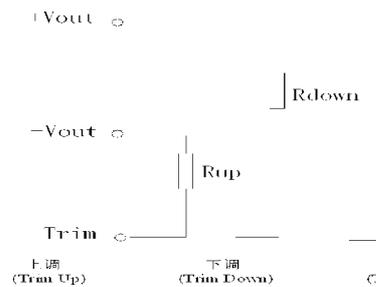
未注公差按下表 (Tolerances Unless Otherwise Specified)	
mm	inches
.x ±0.5	.xx ±0.02
.xx ±0.25	.xxx ±0.010

## 应用电路推荐 (Recommended Application Circuit)

## 输出电压调节 (Output Voltage Trim)



C1、C3 推荐值 (Recommended): 2.2μF 陶瓷电容 (Ceramic Capacitor)  
 C2、C4 推荐值 (Recommended): 220μF 钽电容 (Tantalum Capacitor)  
 L1 推荐值 (Recommended): 1.5μH 电感 (Inductor)



## Vin=3.3V 时温度降额曲线 (Temperature Derating Curve Circuit)

## Vin=5V 时温度降额曲线 (Temperature Derating Curve)

