

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 _{in} and I _{on}
源效应(Line Regulation)	± 0.5% V _o	V _{in} ~ V _{imax} , I _{on}
负载效应(Load Regulation)	± 0.5% V _o	0~100% I _{on} , V _{in}
输出电压调节范围(Output Voltage Trim Range)	± 16%	
故障告警功能(PRGGOOD 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 _{on} , V _{in} =V _{in}
恢复时间(Settling Time)	≤ 100 μs	and 50%-75%-50% of I _{on} , V _{in} =V _{in}

一般特性(General)

注释(Notes and Conditions)

温度系数(Temperature Coefficient)	± 0.02%/℃	
相对湿度(Relative Humidity)	≤ 90%RH, (40 ± 2)℃	
工作环境温度(Operating Ambient Temperature) ¹	-25℃~+55℃	
贮存温度(Storage Temperature)	-40℃~+125℃	
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 ⁵ 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℃ 环境温度下测得。

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

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

BSN6A-4S 9~10.8W Series

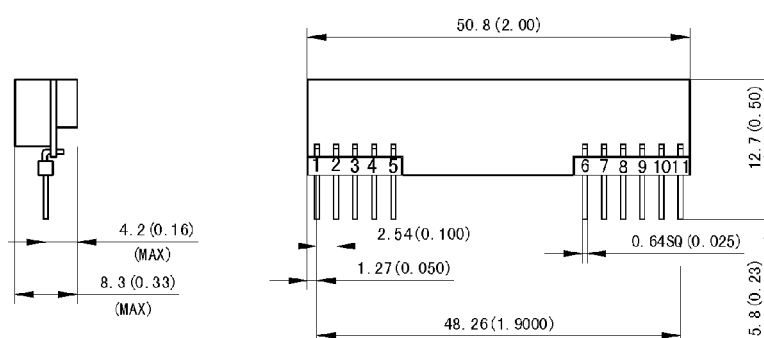


型号列表 (Models)

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)

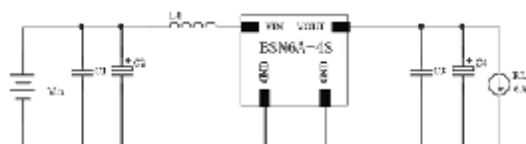
尺寸单位是 mm(inches); All Dimensions in mm (inches)



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

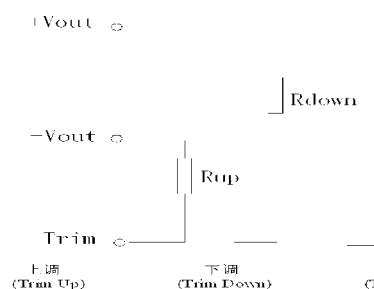
未注公差按下表 (Tolerances Unless Otherwise Specified)	
mm	inches
.x ±0.5	.xx ±0.02
.xx ±0.25	.xxx ±0.010

应用电路推荐 (Recommended Application Circuit)

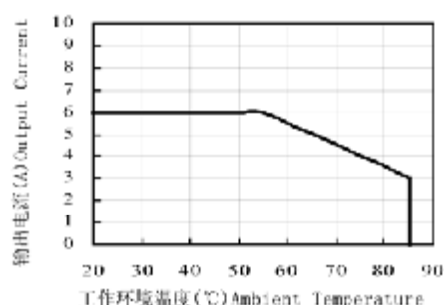


C1, C3 推荐值 (Recommended): 2.2μF 陶瓷电容 (Ceramic Capacitor)
C2, U4 推荐值 (Recommended): 220μF 铝电容 (Aluminum Capacitor)
L1 推荐值 (Recommended): 1.5μH 电感 (Inductor)

输出电压调节 (Output Voltage Trim)



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)

