

## 特点

- \* 输入输出不隔离降压变换器
- \* 3.3V 和 5V 标称输入电压, 10A 输出
- \* 外形尺寸: 50.8 × 12.7 × 8.1 mm
- \* 高效率、高功率密度

## Features

- \* Non-isolated Buck Converter
- \* 3.3V and 5V Input Voltage, 10A Output Current
- \* Size: 2.0 × 0.5 × 0.3 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	
	4.5~5.5Vdc	大于 2.5Vdc 输出(Greater than 2.5Vdc Output)	
遥控功能(Remote On/Off Function)			
负逻辑(Negative Logic)	开启(On)	低电平(0~0.4Vdc)或悬空 (Low Level or Open Circuit)	相对于GND(Reference to GND)
	关闭(Off)	高电平(3.0~5.5Vdc) (High Level)	

输出特性(Output)		注释(Notes and Conditions)	
输出电压精度(Voltage Set-Point Accuracy)	± 2%	V <sub>inom</sub> and I <sub>onm</sub>	
源效应(Line Regulation)	± 1%V <sub>o</sub>	V <sub>imin</sub> ~V <sub>imax</sub> , I <sub>onm</sub>	
负载效应(Load Regulation)	± 1%V <sub>o</sub>	0%~100%I <sub>onm</sub> , V <sub>inm</sub>	
输出电压调节范围(Output Voltage Trim Range)	± 10%	相对于 0.9V 输出 -5%~+10% (-5% to +10% for 0.9V Output)	
输出过流保护点(Current Limit Threshold Range)	120%I <sub>onm</sub>		
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)	± 5%V <sub>o</sub>	25%-50%-25% of I <sub>onm</sub> , V <sub>in</sub> =V <sub>inm</sub>	
恢复时间(Settling Time)	≤ 50 μs	and 50%-75%-50% of I <sub>onm</sub> , V <sub>in</sub> =V <sub>inm</sub>	

一般特性(General)		注释(Notes and Conditions)	
温度系数(Temperature Coefficient)	± 0.02%/℃		
相对湿度(Relative Humidity)	≤ 95%RH, (40 ± 2)℃		
工作温度(Operating Temperature) <sup>1</sup>	-40℃ ~ +85℃		
贮存温度(Storage Temperature)	-55℃ ~ +125℃		
过温保护(Thermal Shutdown Range)	+110℃		
开关频率(Switching Frequency)	300kHz		
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℃ 环境温度下测得。

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

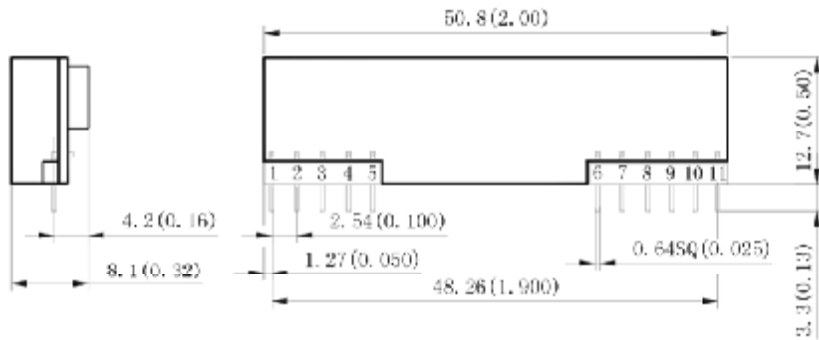
1. 参见降额曲线图(Reference to Derating Curve)

## 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) %	输出杂音电压峰峰值 (Ripple and Noise) mVp-p
BSN10A-3S0V9	5	0.90	10.00	9	81	50
BSN10A-3S1V0	5	1.00	10.00	10	83	50
BSN10A-3S1V2	5	1.20	10.00	12	84	50
BSN10A-3S1V5	5	1.50	10.00	15	86	50
BSN10A-3S1V8	5	1.80	10.00	18	88	50
BSN10A-3S2V0	5	2.00	10.00	20	89	50
BSN10A-3S2V5	5	2.50	10.00	25	90	50
BSN10A-3S3V3	5	3.30	10.00	33	93	50

## 安装尺寸 (Mechanical Drawing)

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

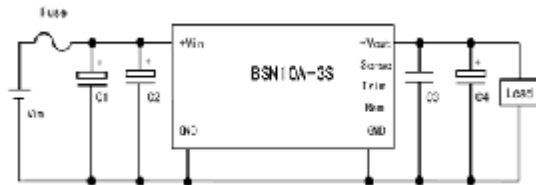


引脚定义 (Pin Definition)	
引脚 (Pin)	单路 (Single)
1	+Vout
2	+Vout
3	Sense
4	+Vout
5	GND
6	GND
7	+Vin
8	+Vin
9	NC
10	Trim
11	Rem

公差表  
(Tolerances Unless Otherwise Specified)

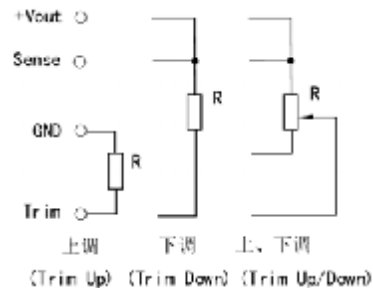
mm	inches
.x ±0.5	.xx ±0.02
.xx ±0.25	.xxx ±0.010

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

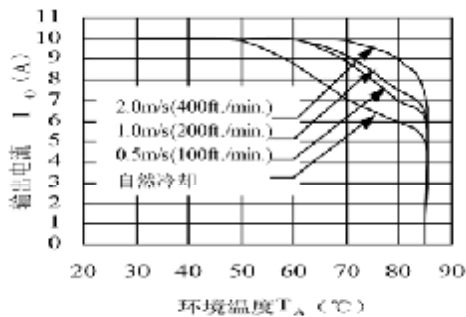


C1、C2 推荐值 (Recommended): 220  $\mu$ F 钽电容 (Tantalum Capacitor)  
 C3 推荐值 (Recommended): 1  $\mu$ F 陶瓷电容 (Ceramic Capacitor)  
 C4 推荐值 (Recommended): 10  $\mu$ F 钽电容 (Tantalum Capacitor)

## 输出电压调节 (Output Voltage Trim)



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



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

