

## JWDB--10W 单路输出 B 型封装系列

JWDB--10W single output B Package type series

### 典型性能 Typical Performance

- ◆外形尺寸: 25.4\*50.8\*10.16 (mm)  
Dimension: 25.4\*50.8\*10.16 (mm)
- ◆宽输入电压范围 (2: 1 和 4: 1 输入电压范围)  
Wide range input voltage (2: 1 & 4: 1 range input voltage)
- ◆105°C 长寿命电解电容  
105°C long life electrolytic capacitors
- ◆高效率、高功率密度、低纹波  
High efficiency, High power density, Low ripple & noise
- ◆黑金属外壳, 八面屏蔽, 通孔安装  
Black metal shell, Eight face shield, Hole is installed
- ◆安规: EN60950  
Ann rules: EN60950



### 输入特性 Input Features

输入电压范围 Input voltage range	标称 12V(W) Nominal voltage 12V(W) 标称 24V Nominal voltage 24V 标称 48V(W) Nominal voltage 48V(W) 标称 110V Nominal voltage 110V	9.5~18VDC(9.5~36V)  18~36VDC  36~72VDC(18~72V)  72~144VDC
-------------------------------	--	---

### 输出特性 Output Features

输出电压精度 Voltage tolerance	标称电压 Nominal voltage	$\cong \pm 1\%$ (3.3V、5V $\cong \pm 2\%$ )
电压调整率 Line regulation (full load)	输入电压从低端到高端变化 Change of input voltage from lowend to highend	$\cong \pm 0.5\%$
负载调整率 Load regul	20%~100% 负载变化 20%~100% Load change	$V_O \cong \pm 0.5\%$
纹波噪声 Ripple&Noise	20M 带宽 20M Bandwidth	$\cong 1\%$
温度系数 Temperature coefficient		$\pm 0.02\%/^{\circ}\text{C}$
容性负载 Capacitive load	输入标称电压、满载 Input rated voltage, Fullload	见附表 As per list enclosed
过流保护 Output overcircuit Protection		115~150% 额定电流, 自恢复 115~150% rated output circuit, auto recovery
短路保护 Short Circuit Protection		长期, 自恢复 Long-term, auto recovery
启动延迟时间 Turn-on delay time	典型值 Typical value	$\cong 300\text{mS}$
过冲幅度 Overshoot	25% 额定负载变化 25% rated load change	$\cong 500\mu\text{S}$
	$\Delta V_{O1} / V_{O1}$	$\cong \pm 5.0\%$

### 一般特性 General Features

隔离耐压 Withstand voltage	输入对输出 I/P-O/P (1 分钟, 漏电流 $\cong 5\text{mA}$ ) (1Mintute, leakage current) $\cong 5\text{mA}$	1500VDC
绝缘电阻 Isolation resistance	500V	$\cong 100\text{M}\Omega$
MTBF	环境 25°C Environment 25°C	$2.0 \times 10^5 \text{Hrs}$
开关频率 switching frequency		300KHz
最大壳温 The highest shell temperature	工作环境温度较高时, 需加装辅助散热措施, 确保模块表面温度低于 95°C When working environment temperature is higher, need to add auxiliary colling measures, to ensure that the surface temperature below 95°C	+95°C
工作温度 Operating temperature	55°C 以上降额使用 Above 55°C derating make	-40°C ~ 70°C
储存温度 Storage temperature		-40°C ~ 85°C
工作相对湿度 Operating humidity	无凝露及结冰现象 (non condensing)	10% ~ 90%RH
储存相对湿度 Storage humidity	无凝露及结冰现象 (non condensing)	5% ~ 95%RH
冷却方式 Cooling method		自然冷却 Convection

## 容性负载 Capacitive Load

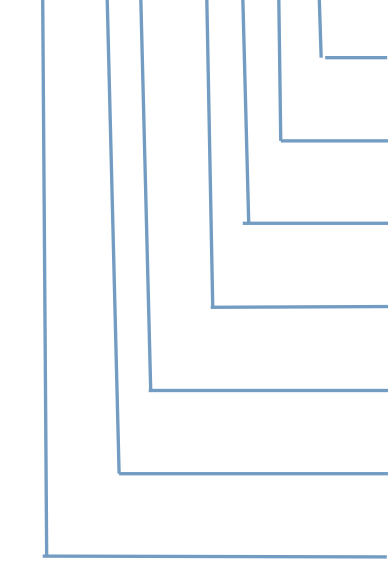
Vout:5V		Vout:12V、15V		Vout:24V	
推荐值 Recommendations	最大值 Maximum	推荐值 Recommendations	最大值 Maximum	推荐值 Recommendations	最大值 Maximum
470μF	1200μF	220μF	630μF	100μF	330μF

注：模块的输出端可以外加电解电容，但过大的容量和过低的 ESR 值可能会引起模块工作的不稳定，或造成限流点变低，推荐输出电容值为 100μ F/A，此处的电流指额定输出电流。

Note:The output end of the module can be coupled with electrolytic capacitor, but too much capacity and low ESR value may cause the instability of the module, or current limit points of lower output capacitance of the recommended value of 100 u F/A, the current here refers to the rated output current.

## 命名方式 Naming Rules

### JWDB 10 -12 S 5 W



W: 输入电压 4:1; 无标注: 输入电压 2:1

W: Input voltage range 4:1; Not marked input voltage range 2:1

输出电压

Output voltage

单路输出

Single Output

标称输入电压

Nominal Input voltage

输出功率

Output power

外形尺寸 50.8\*25.4(mm)

Dimension 50.8\*25.4(mm)

DC/DC 电源模块

DC/DC power module

## 产品选型 Product selection

产品型号 Model No.	输入电压范围 Input voltage $V_{in}$	输出电压 Output voltage $V_O$	输出电流 Output current $I_O$	纹波噪声 R & N $V_{(P-P)mV}$	效率 Efficiency
JWDB10-12S3.3(W)	9.5~18V 9.5~36V(W)	3.3V	3.03A	50	75%
JWDB10-12S5(W)		5V	2.00A	50	80%
JWDB10-12S12(W)		12V	0.84A	100	82%
JWDB10-12S15(W)		15V	0.67A	100	83%
JWDB10-12S24(W)		24V	0.42A	120	84%
JWDB10-24S3.3	18~36V	3.3V	3.03A	50	75%
JWDB10-24S5		5V	2.00A	50	80%
JWDB10-24S12		12V	0.84A	100	83%
JWDB10-24S15		15V	0.67A	100	83%
JWDB10-24S24		24V	0.42A	120	84%
JWDB10-48S3.3(W)	36~72V 18~72V(W)	3.3V	3.03A	50	76%
JWDB10-48S5(W)		5V	2.00A	50	80%
JWDB10-48S12(W)		12V	0.84A	100	83%
JWDB10-48S15(W)		15V	0.67A	100	84%
JWDB10-48S24(W)		24V	0.42A	120	85%
JWDB10-110S3.3	72~144V	3.3V	3.03A	50	77%
JWDB10-110S5		5V	2.00A	50	80%
JWDB10-110S12		12V	0.84A	100	84%
JWDB10-110S15		15V	0.67A	100	85%
JWDB10-110S24		24V	0.42A	120	86%

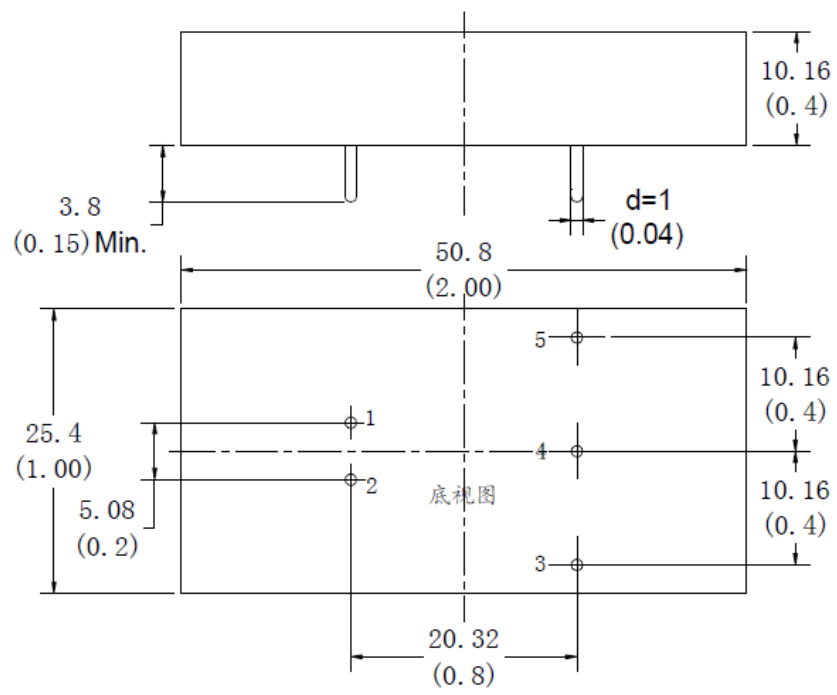
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

输出纹波噪声（峰-峰值）的测量，请参照模块测试说明中介绍的方法进行。

Note:Due to space limitations ,the above list is only for some products, If other than a list of products, please contact the Company's sales department.

Output ripple noise measurement (peak - peak), please refer to the module test notes method is introduced.

## 封装尺寸图 MechanicalData



单位: mm(inch)

## 管脚定义 Pin Assignments

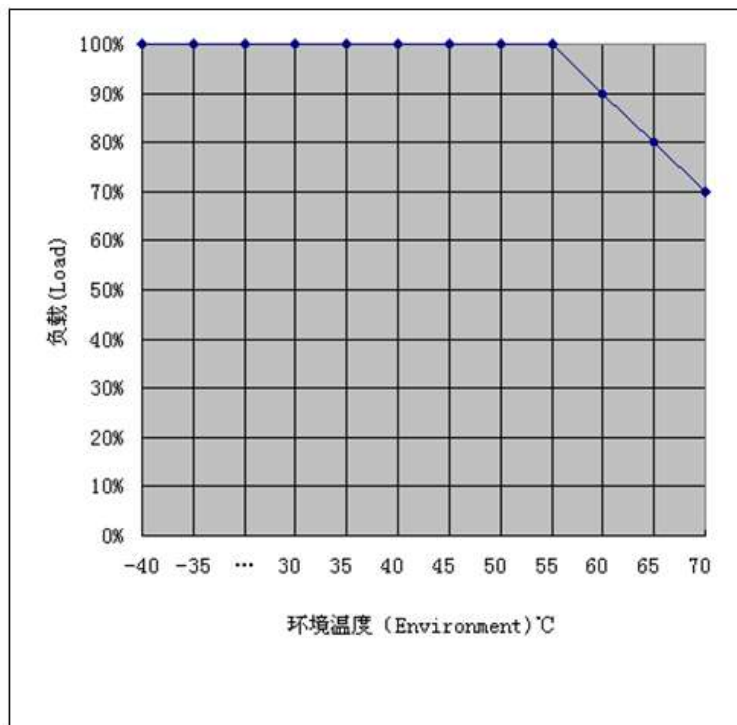
P1	P2	P3	P4	P5
Vin+	Vin-	Vo-	NP	Vo+

注: 电源模块的外形尺寸和管脚定义如与选型手册不符, 请以实物实际尺寸为准。

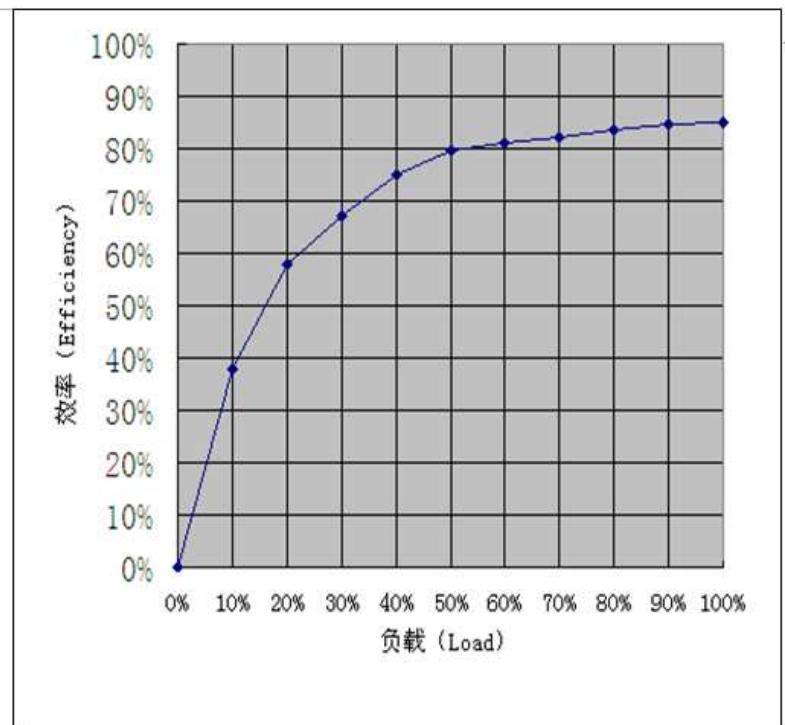
Note: Dimensions and pin definitions of power module such as inconsistent with the hand book, please in kind prevail actual size

## 典型曲线 Typical curve

降额曲线  
Derating curve



效率曲线  
Efficiency curve



## 纹波噪声测试: (靠测法 20MHz)

测试方法: 纹波&噪声用示波器来测试。测试模块噪声时为了避免引入额外噪声, 须用示波器探头直接接触模块输出引脚

