

JWDB--12W 单路输出 B 型封装系列

JWDB--12W 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 voltage12V(W) 标称 24V Nominal voltage24V 标称 48V(W) Nominal voltage48V(W) 标称 110V Nominal voltage110V | 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 | ≅ ±1% (3.3V、5V ≅ ±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 | ≅ ±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 | ≅ 1% |
| 温度系数 Temperature coefficient | | ±0.02%/°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 |
| 过冲幅度 Overshoot | 25% 额定负载变化 25% rated load change | ≅ 25μ S |
| | $\Delta V_{01} / V_{01}$ | ≅ ±5.0% |

一般特性 General Features

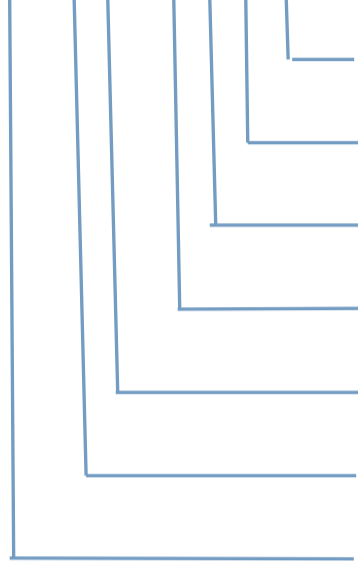
| | | |
|---------------------------------------|---|-------------------------|
| 隔离耐压 Withstand voltage | 输入对输出 I/P-O/P (1 分钟, 漏电流 ≅ 5mA) (1Mintute ,leakage current) ≅ 5mA) | 1500VDC |
| 绝缘电阻 Isolation resistance | 500V | ≅ 100MΩ |
| MTBF | 环境 25°C Environment 25°C | 2.0*10 ⁵ Hrs |
| 开关频率 switching 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 workingenvironment 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 |

命名方式 Naming Rules

JWDB 12 -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

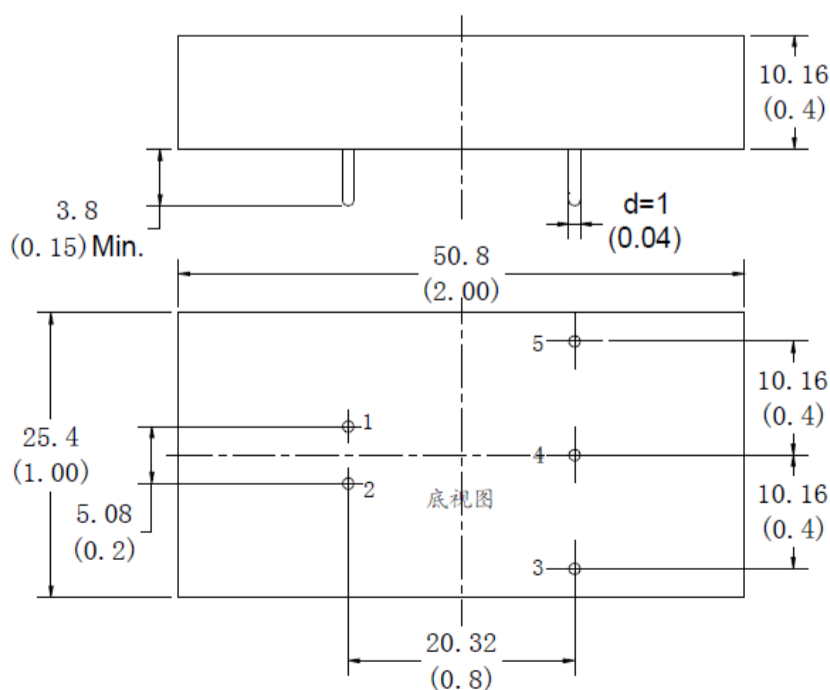
| 产品型号 Model No. | 输入电压范围 Input voltage V_{in} | 输出电压 Output voltage V_o | 输出电流 Output current I_o | 纹波噪声 R & N $V_{(P-P)mV}$ | 效率 Efficiency |
|-------------------|-------------------------------------|---------------------------------|---------------------------------|--------------------------------|------------------|
| JWDB12-12S3.3(W) | 9.5~18V 9.5~36V(W) | 3.3V | 3.63A | 50 | 75% |
| JWDB12-12S5(W) | | 5V | 2.40A | 50 | 80% |
| JWDB12-12S12(W) | | 12V | 1.00A | 100 | 82% |
| JWDB12-12S15(W) | | 15V | 0.80A | 120 | 83% |
| JWDB12-12S24(W) | | 24V | 0.50A | 150 | 84% |
| JWDB12-24S3.3 | 18~36V | 3.3V | 3.63A | 50 | 75% |
| JWDB12-24S5 | | 5V | 2.40A | 50 | 80% |
| JWDB12-24S12 | | 12V | 1.00A | 100 | 83% |
| JWDB12-24S15 | | 15V | 0.80A | 100 | 83% |
| JWDB12-24S24 | | 24V | 0.50A | 120 | 84% |
| JWDB12-48S3.3(W) | 36~72V (18~72V) | 3.3V | 3.63A | 50 | 76% |
| JWDB12-48S5(W) | | 5V | 2.40A | 50 | 80% |
| JWDB12-48S12(W) | | 12V | 1.00A | 100 | 83% |
| JWDB12-48S15(W) | | 15V | 0.80A | 100 | 84% |
| JWDB12-48S24(W) | | 24V | 0.50A | 120 | 85% |
| JWDB12-110S3.3 | 72~144V | 3.3V | 3.63A | 50 | 77% |
| JWDB12-110S5 | | 5V | 2.40A | 50 | 80% |
| JWDB12-110S12 | | 12V | 1.00A | 100 | 84% |
| JWDB12-110S15 | | 15V | 0.80A | 100 | 85% |
| JWDB12-110S24 | | 24V | 0.50A | 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 Mechanical Data



单位: mm (inch)

管脚定义 Pin Assignments

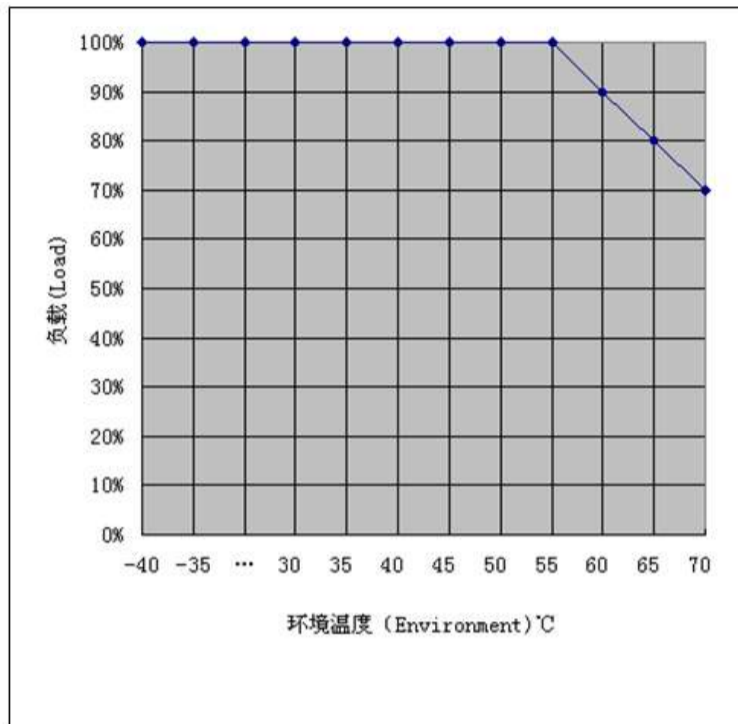
| P1 | P2 | P3 | P4 | P5 |
|------|------|-----|----|-----|
| Vin+ | Vin- | Vo- | NP | Vo+ |

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。

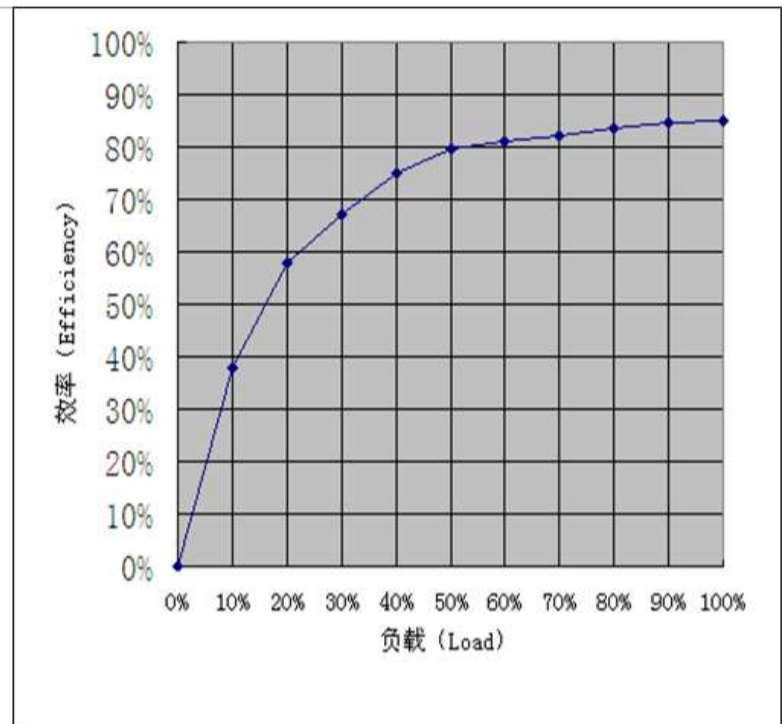
Note: Dimensions and pin definitions of power module such as inconsistent with the hand book, please in kind prevail actual size

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

