



DC/DC 电源模块

JWDA--15W 单路输出 A 型封装系列

JWDA--15W single output A Package type series

典型性能 Typical Performance

- ◆外形尺寸: 25.4*25.4*10.16 (mm)
Dimension: 25.4*25.4*10.16 (mm)
- ◆宽输入电压范围 (2: 1 输入电压范围)
Wide range input voltage (2: 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 Nominal voltage12V	9.5~18VDC
	标称 24V Nominal voltage24V	18~36VDC
	标称 48V Nominal voltage48V	36~72VDC
	标称 110V Nominal voltage110V	72~144VDC

输出特性 Output Features

输出电压精度 Voltage tolerance	标称电压 Nominal voltage	$\cong \pm 1\%$ (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	$\cong 500\mu\text{S}$
	$\Delta V_{0L} / V_{0L}$	$\cong \pm 5.0\%$

一般特性 General Features

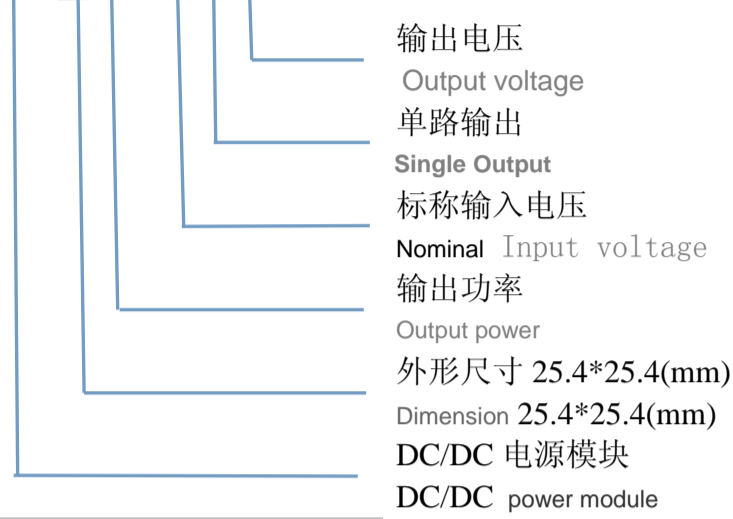
隔离耐压 Withstand voltage	输入对输出 (1 分钟, 漏电流 $\cong 5\text{mA}$) I/P-O/P(1Mintute ,leakage current) $\cong 5\text{mA}$)	1500VDC
绝缘电阻 Isolation resistance	500V	$\cong 100\text{M}\Omega$
MTBF	环境 25°C Environment 25°C	$2.0 \times 10^5 \text{Hrs}$
开关频率 switching frequency		300KHz
最大壳温 The highest shell temperature	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 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
1000μF	4700μF	470μF	2200μF	100μF	470μF

命名方式 Naming Rules

JWDA15 -12 S 5



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
JWDA15-12S5	9.5~18V	5V	3.00A	50	87%
JWDA15-12S12		12V	1.25A	100	88%
JWDA15-12S15		15V	1.00A	100	88%
JWDA15-12S24		24V	0.63A	120	88%
JWDA15-24S5	18~36V	5V	3.00A	50	87%
JWDA15-24S12		12V	1.25A	100	88%
JWDA15-24S15		15V	1.00A	100	88%
JWDA15-24S24		24V	0.63A	120	88%
JWDA15-48S5	36~72V	5V	3.00A	50	87%
JWDA15-48S12		12V	1.25A	100	88%
JWDA15-48S15		15V	1.00A	100	88%
JWDA15-48S24		24V	0.63A	120	88%
JWDA15-110S5	66~160V	5V	3.00A	50	87%
JWDA15-110S12		12V	1.25A	100	88%
JWDA15-110S15		15V	1.00A	100	88%
JWDA15-110S24		24V	0.63A	120	88%

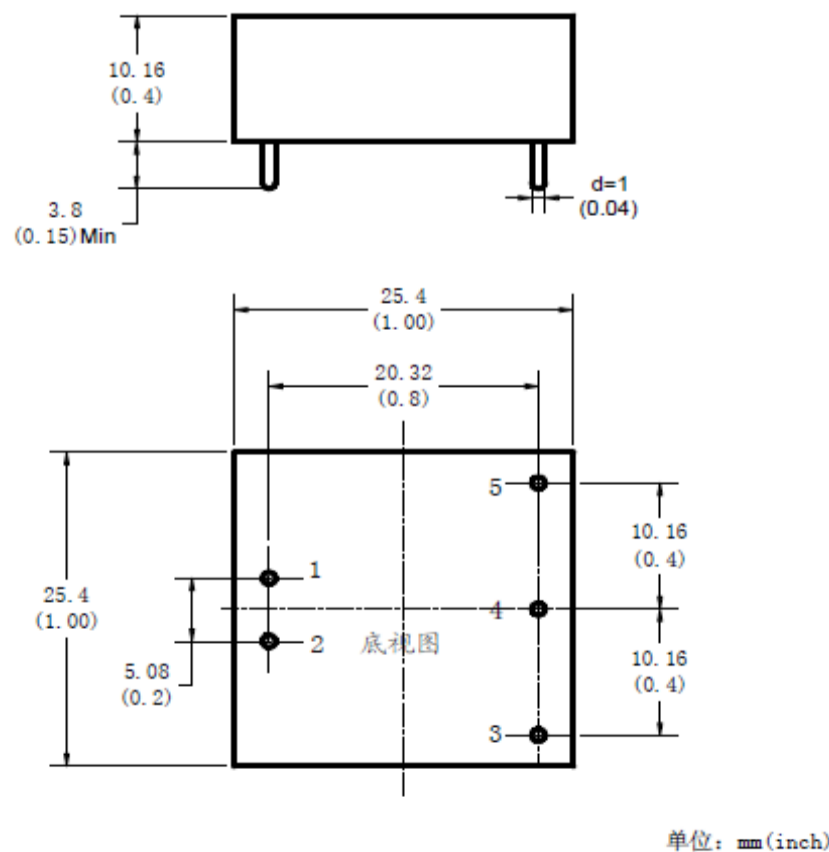
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

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



管脚定义 Pin Assignments

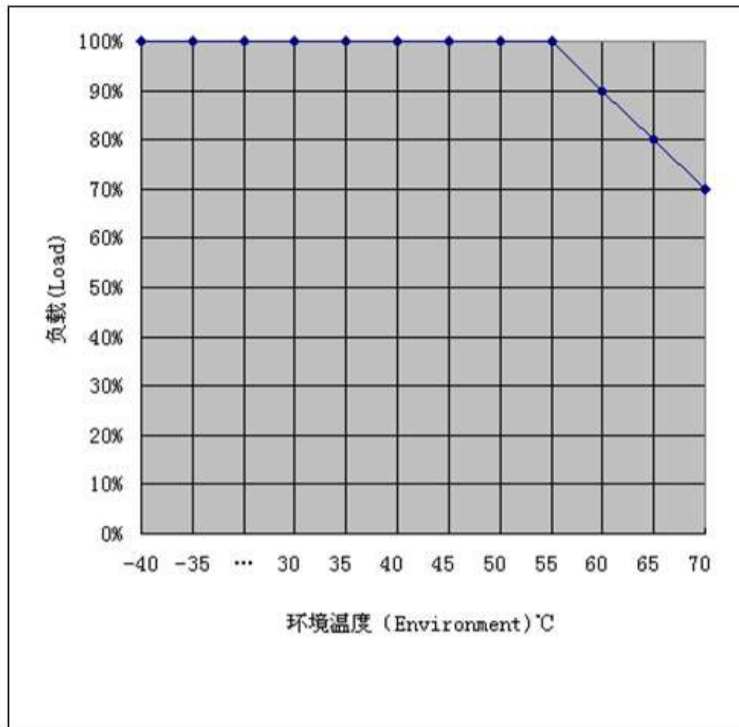
P1	P2	P3	P4	P5
Vin+	Vin-	Vo-	NP	Vo+

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。

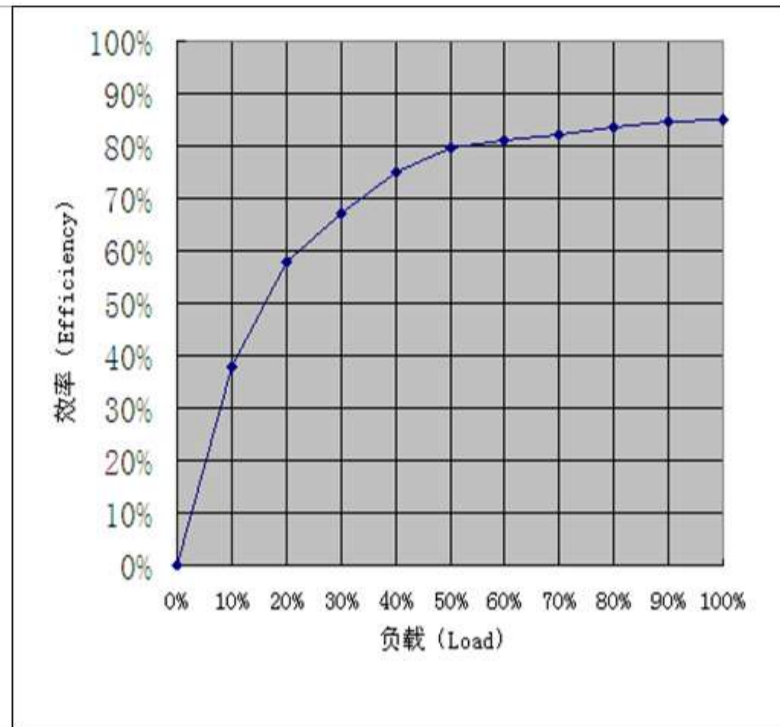
Note: Dimensions and pin definitions of power module such as inconsistent with the hand book, please in kind prevail actual size

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

