



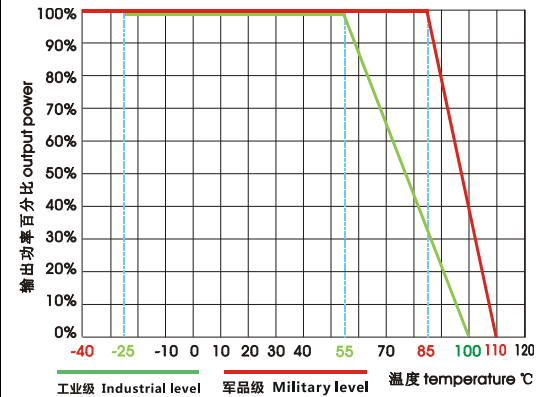
WD15-20 Series

DC/DC 宽压输入 15-20W (DC/DC wide input 15-20W)

Typical performance

- ◆ Wide Input voltage range (2:1 or 4:1)
- ◆ Typical Efficiency 85%
- ◆ Switching frequency: 300KHz ± 30 KHz
- ◆ Over current/Short circuit protection, Self-furbish
- ◆ Input-output isolate (500/1000/1500/2000Vdc)
- ◆ PCB Board in-line type installs
- ◆ Metal case, Low Output Ripple

Temperature graph



Technology parameter (Test condition : Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and temperature conditions)

Input	Min	Nom	Max	Notes
Input voltage	9	12	18	2:1
	18	24	36	2:1
	36	48	72	2:1
	72	110	144	2:1
	10	12	36	4:1
	18	48	72	4:1
Remote (Positive logic control)		ON	High level or vacant	3.5Vdc~+Vin
		OFF	Low level or connect ground	≤0.3Vdc
Input undervoltage protection	Lower than the low-input voltage protection , Self-furbish			

Output

Voltage accuracy		Vo1;Vo2	±1.0%, ±2.0%
Line regulation	Nominal Load, full voltage range	Vo1;Vo2	±0.2%, ±1.5%
Load regulation	20% ~ 100% rated voltage	Vo1;Vo2	±0.5%, ±4.0%
Ripple and noise	20MHz BM (Full Load) Vo≤5.0V, ≤50mVp-p; Vo≥48V, ≤180mVp-p; Other, ≤100mVp-p;		

Dynamic response	25% Nominal load step change(increase or reduce)	$\Delta V_o / \Delta t$	$\pm 4.0/500\mu s\%$
Voltage adjust	Nominal output	TRIM	$\pm 10\%$ (adjust)
Start delay time	Typical value		$\leq 200\text{mS}$

General

Efficiency	Nominal input, Full load	$V_o \leq 5.0\text{V}, 80\%$ (Typical)	$V_o > 5.0\text{V}, 85\%$ (Typical)
Switching frequency		300KHz (Typical)	Max 330KHz
Operating temperature	Free air	Industrial level	$-25^\circ\text{C} \sim +55^\circ\text{C}$
		Military level	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage temperature		Industrial level	$-40^\circ\text{C} \sim +105^\circ\text{C}$
		Military level	$-55^\circ\text{C} \sim +120^\circ\text{C}$
Max case temperature		Industrial level	$+100^\circ\text{C}$
		Military level	$+110^\circ\text{C}$
Relative humidity			10%~90%
case material			Metal case
Isolation Voltage	500/1000/1500/2000 Vdc $\leq 0.5\text{mA}/1\text{min}$, 500Vdc $\leq 0.5\text{mA}/1\text{min}$		
(MTBF)	2×10^5 Hrs		

Product Nomination Method

Example	W D 20 - 48 S 05 J ① ② ③ ④ ⑤ ⑥ ⑦		
①	Wide range voltage input: 2:1	⑥	Output voltage
②	Power convert mode D (DC-DC)	⑦	J : Indicate Military level, Non: Indicate Industrial level
③	Output Watt		G : Indicate input output no isolate
④	Input voltage		I : Indicate dual output isolate
⑤	S: Single output D: dual output		W : Indicate wide range voltage input: 4:1

Typical product tabulates

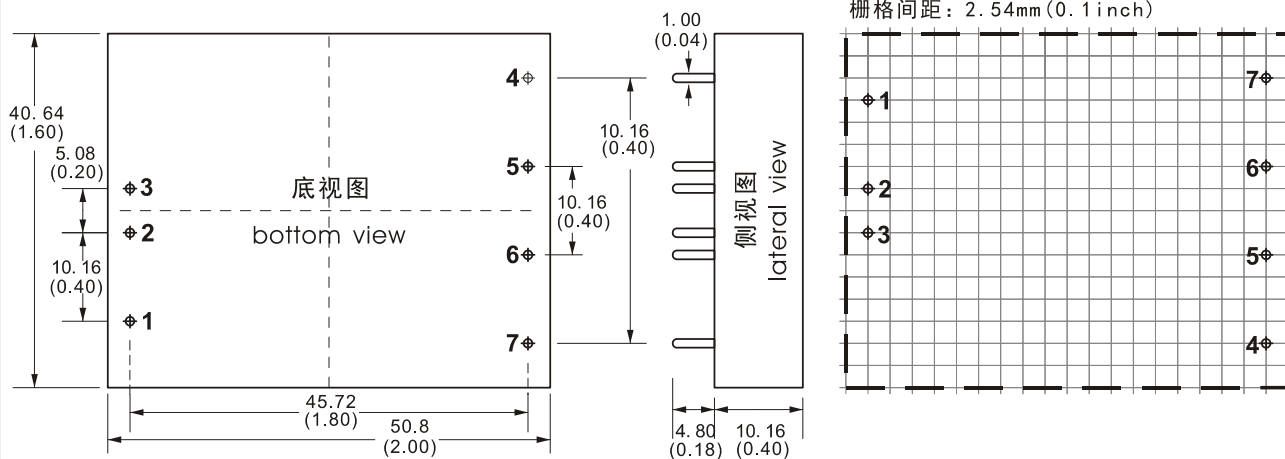
TYPE	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	mA	V	mA	V	mA

WD15-□S3V3	12 V (9~18V) 24V (18~36V) 48V (36~72V) 110V (72~144V)	3.3V	3000mA					
WD15-□S05		5V	3000mA					
WD15-□S09		9V	1600mA					
WD15-□S12		12V	1250mA					
WD15-□S15		15V	1000mA					
WD15-□S24		24V	625mA					
WD15-□S48		48V	310mA					
WD20-□S3V3		12V (10~36V) W 48V (18~72V) W	3.3V	4000mA				
WD20-□S05		5V	4000mA					
WD20-□S09		9V	2220mA					
WD20-□S12		12V	1660mA					
WD20-□S15		15V	1330mA					
WD20-□S24		24V	830mA					
WD20-□S48		48V	410 mA					
WD15-□D3V3	12 V (9~18V) 24V (18~36V) 48V (36~72V) 110V (72~144V)	+3.3V	1500 mA	-3.3V	1500 mA			
WD15-□D05		+5V	1500 mA	-5V	1500 mA			
WD15-□D09		+9V	830 mA	-9V	830 mA			
WD15-□D12		+12V	625 mA	-12V	625mA			
WD15-□D15		+15V	500 mA	-15V	500 mA			
WD15-□D24		+24V	310 mA	-24V	310 mA			
WD20-□D3V3		+3.3V	2000 mA	-3.3V	2000 mA			
WD20-□D05		+5V	2000 mA	-5V	2000 mA			
WD20-□D09		+9V	1110 mA	-9V	1110 mA			
WD20-□D12		+12V	830 mA	-12V	830 mA			
WD20-□D15		+15V	660 mA	-15V	660 mA			
WD20-□D24		+24V	410 mA	-24V	410 mA			

□Shows the nominal value of input voltage, due to space limitations ,the above list is only for some products, If demand for products out of above list, please contact the our sales department.

Mechanical Data

单位: mm
印刷板俯视图
栅格间距: 2.54mm(0.1inch)



A封装

Mechanical Data

Package Code	L x W x H (unit): mm	Package No
A	50.80 x 40.64 x 10.16	200160DC

Pin Assignments

Pin No	1	2	3	4	5	6	7			
Single	REM	-Vin	+Vin	NP	+Vout	GND	TRIM			
Dual	REM	-Vin	+Vin	+Vout1	COM	-Vout2	TRIM			

*Note: The power modules such as the definition of the pin does not match with the data sheet ,please refer to the actual item.