

Typical Performance

**FEATURES**

- Wide Input voltage range (2:1、4:1)
- Typical Efficiency:80%
- Switching frequency: 300KHz ± 30 KHz
- Overcurrent/Short circuit protection,Self-furbish
- Input-output isolate 1500VDC
- PCB Board in-line type installs
- Metal case, Low Output Ripple



**Technology parameter** Test condition:General Nominal Line,Tc=25°C , Rated resistant load unless other wispecified

Input Feature	Min	Nom	Max	Notes
Input voltage(Vdc)	9	12	18	W 2:1
	18	24	36	W 2:1
	36	48	72	W 2:1
	72	110	144	W 2:1
	9	18	36	W 4:1
	18	36	72	W 4:1
REMOTE(ON/OFF)	ON		Open Circuit or High level(8~+Vin)	
	OFF		Connect to FG or Low level(0~0.4V)	

Output Feature

Voltage accuracy		Vo1;Vo2,Vo3	±1.0%, ±3.0%
Line regulation	Nominal Load,full voltage input range	Vo1;Vo2,Vo3	±0.2%, ±1.5%
Load regulation	Nominal Input Voltage,20% ~ 100% Nominal Load	Vo1;Vo2,Vo3	±0.5%, ±3.0%
Ripple and noise	20MHz BM full load Vo≤5.0V, ≤50mVp-p; Vo≥48V, ≤180mVp-p; Other, ≤100mVp-p;test by 20M oscillograph		
Voltage adjust	Standard output voltage	TRIM	±10% adjustable
Peak Deviation	25% Rated Load Vary	ΔVo1/ Vo1	≤±5.0%
Dynamic Response Setting Time			≤200mS

## General Feature

Efficiency			80% typical
Switching frequency			300KHz typical
Operating temperature	Free air	Industrial level	-25℃ ~ +55℃
Storage temperature			-40℃ ~ +105℃
Max case temperature			+90℃
Relative humidity			10%~90%
case material			Metal case
Isolation Voltage	Input-Output		1500VDC
	Input-Case		1500VDC
	Output-Case		500VDC
Isolation Resistance			10MΩ
Temperature Coefficient			±0.02%/℃
Cooling			Natural Convection
MTBF	2X10 <sup>5</sup> Hrs		

### NOTE:

(1)The module working environment temperature more than 55 ℃ need derating use ( - 0.15W/℃), but the max shell temperature shall not be more than 90 ℃.

(2)Capacitive load:

The output of the module can be applied electrolytic capacitor, but too much capacity and low ESR may cause the module instability, or cause current limiting point become low,we recommend 100 u F/A of the output capacitance , the current is rated output current.

## Product Nomination Method

example	L D 25 - 48 S 05 I						
	①	②	③	④	⑤	⑥	⑦
①	Wide input voltage: 2: 1				⑥	output voltage	
②	Power adaptation mode: D (DC-DC)				⑦	I: Dual Route output Isolate	
③	Output power(W)					W: Super Wide input voltage	
④	Normal input voltage						
⑤	S=Single route output, D=Dual route output, T=Triple route output, Q=Quadruple output						

## Product Program

PART #	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	mA	V	mA	V	mA

LD50-12S05C	12V(9~18V)	5V	10000mA				
LD50-12S09D		9V	5556mA				
LD50-12S12D		12V	4200mA				
LD50-12S15D		15V	3300mA				
LD50-12S18D		18V	2778mA				
LD50-12S24D		24V	2100mA				
LD50-12S28D		28V	1786mA				
LD50-12S48D		48V	1042mA				
LD50-12D05D		+5V	5000mA	-5V	5000mA		
LD50-12D12D		+12V	2100mA	-12V	2100mA		
LD50-24S05D	24V(18~36V)	5V	10000mA				
LD50-24S09D		9V	5556mA				
LD50-24S12D		12V	4200mA				
LD50-24S15D		15V	3300mA				
LD50-24S18D		18V	2778mA				
LD50-24S24D		24V	2100mA				
LD50-24S28D		28V	1786mA				
LD50-24S48D		48V	1042mA				
LD50-24D05D		+5V	5000mA	-5V	5000mA		
LD50-24D12D		+12V	2100mA	-12V	2100mA		
LD50-48S05D	48V(36~72V)	5V	10000mA				
LD50-48S09D		9V	5556mA				
LD50-48S12D		12V	4200mA				
LD50-48S15D		15V	3300mA				
LD50-48S18D		18V	2778mA				
LD50-48S24D		24V	2100mA				
LD50-48S28D		28V	1786mA				
LD50-48S48D		48V	1042mA				
LD50-48D05D		+5V	5000mA	-5V	5000mA		
LD50-48D12D		+12V	2100mA	-12V	2100mA		
LD50-110S05D	110V(72~144V)	5V	10000mA				
LD50-110S09D		9V	5556mA				

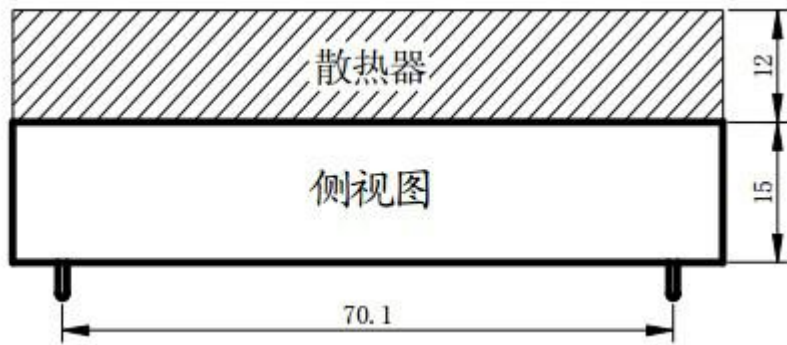
LD50-110S12D		12V	4200mA				
LD50-110S15D		15V	3300mA				
LD50-110S18D		18V	2778mA				
LD50-110S24D		24V	2100mA				
LD50-110S28D		28V	1786mA				
LD50-110S48D		48V	1042mA				
LD50-110D05D		+5V	5000mA	-5V	5000mA		
LD50-110D12D		+12V	2100mA	-12V	2100mA		

**\*NOTE:**

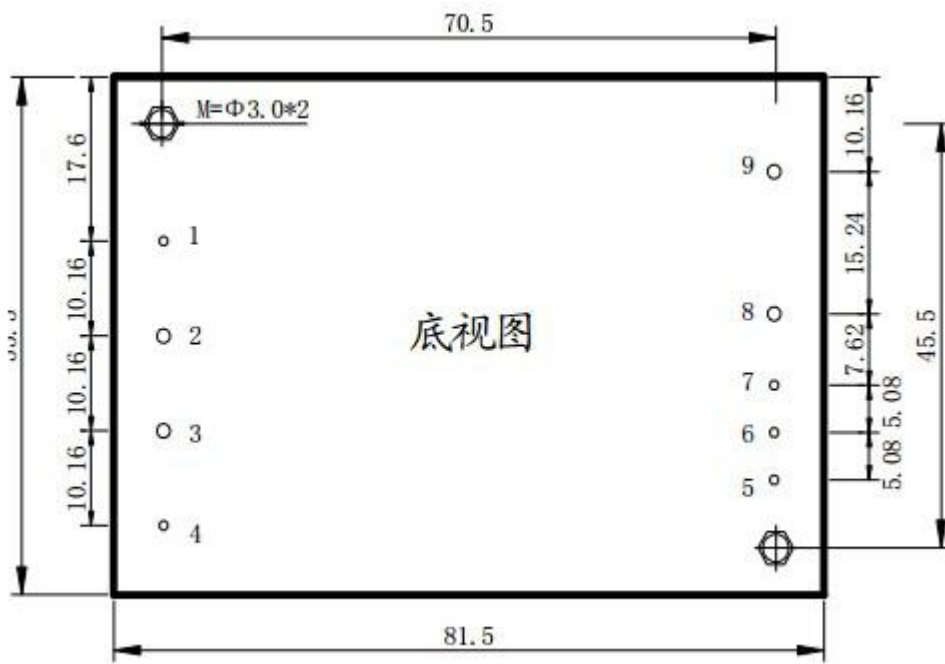
(1) This series, if the nominal input is 12V, the module does not support long time short circuit protection, short time should be controlled within 20 S.

(2) The output ripple noise (peak value) measurement, please reference module test instructions.

***Mechanical Dimension***



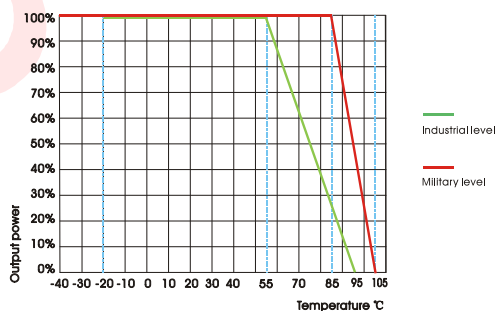
LATERAL VIEW



BOTTOM VIEW

UNIT:mm

### Temperature Curve



### Mechanical Data

WATT	L x W x H	Packing No.
50W	81.50*55.50*15.00mm(3.2*2.19*0.56inch)	D

### Pin Assignment

PIN	1	2	3	4	5	6	7	8	9	
Single O/P	FG	+Vin	-Vin	REM	-S	TRIM	+S	GND	Vo1	
*Note: The power modules such as the definition of the pin does not match with the hand book,please refer to the actual item.										

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