

### Typical Performance

#### FEATURES

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



3-Years Product Warranty

**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(start voltage 9.5V)	12	18	W 2:1
	18	24	36	W 2:1
	36	48	72	W 2:1
	72	110	144	W 2:1
	9(start voltage 9.5V)	18	36	W 4:1
	18	36	72	W 4:1
Remote ON/OFF				Non

### 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			≤200us

## General Feature

Efficiency	Normal input , full load		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	BELLCORE TR332, (25℃)		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

## Product Nomination Method

example	L D 5 - 48 S 05 I						
	①	②	③	④	⑤	⑥	⑦
①	L:Wide voltage input: 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

LD15-12S05B	12V(9~18V)	5V	2400mA				
LD15-12S12B		12V	1200 mA				
LD15-12S15B		15V	1000mA				
LD15-12S18B		18V	833mA				
LD15-12S24B		24V	630mA				
LD15-12S28B		28V	536mA				
LD15-12S48B		48V	313mA				
LD15-12D12B		+12V	625mA	-12V	625 mA		
LD15-12D15B		+15V	500mA	-15V	500mA		
LD15-12D24B		+24V	310mA	-24V	310mA		
LD15-18S05B		18V(9~36V)	5V	2400mA			
LD15-18S12B	12V		1200 mA				
LD15-18S15B	15V		1000mA				
LD15-18S18B	18V		833mA				
LD15-18S24B	24V		630mA				
LD15-18S28B	28V		536mA				
LD15-18S48B	48V		313mA				
LD15-18D12B	+12V		625mA	-12V	625 mA		
LD15-18D15B	+15V		500mA	-15V	500mA		
LD15-18D24B	+24V		310mA	-24V	310mA		
LD15-24S05B	24V(18~36V)		5V	2400mA			
LD15-24S12B		12V	1200 mA				
LD15-24S15B		15V	1000mA				
LD15-24S18B		18V	833mA				
LD15-24S19B		19V	789mA				
LD15-24S24B		24V	630mA				
LD15-24S28B		28V	536mA				
LD15-24S48B		48V	313mA				
LD15-24D12B		+12V	625mA	-12V	625 mA		
LD15-24D15B		+15V	500mA	-15V	500mA		
LD15-24D24B		+24V	310mA	-24V	310mA		

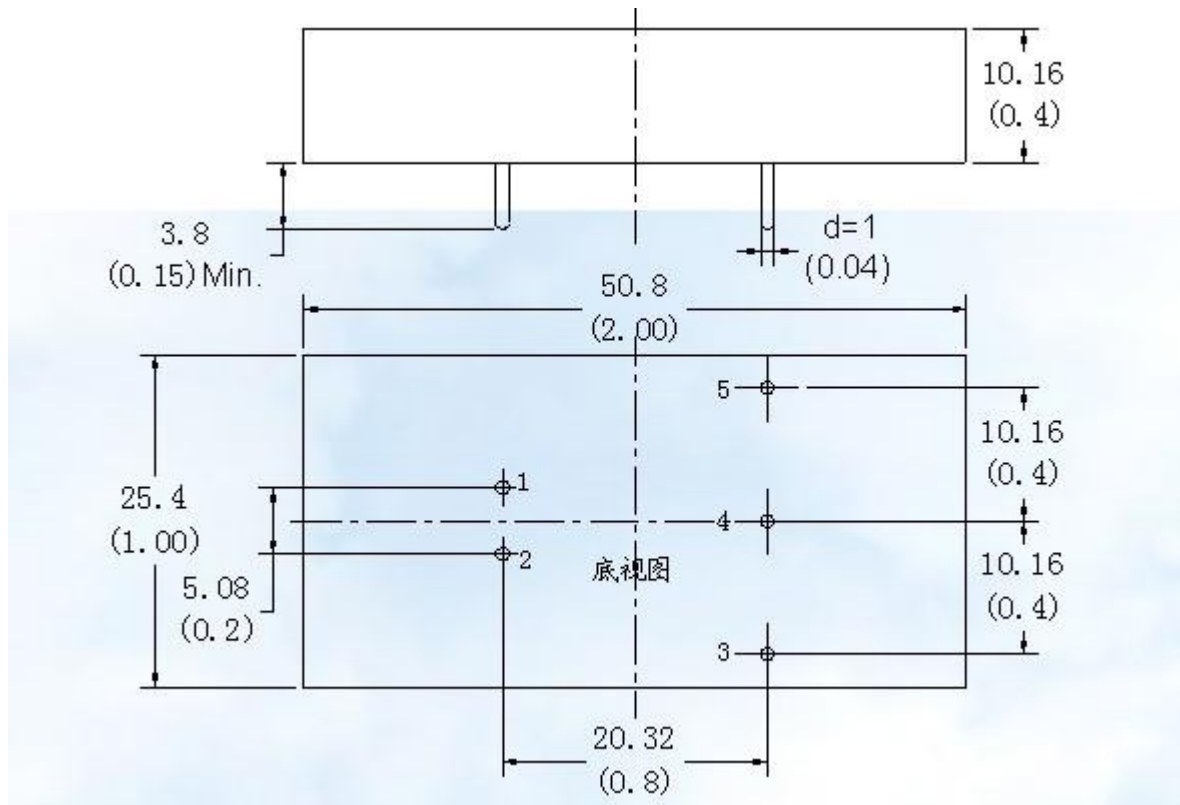
LD15-36S12B	36V (18~72V)	12V	1200 mA				
LD15-36S15B		15V	1000mA				
LD15-36S18B		18V	833mA				
LD15-36S24B		24V	630mA				
LD15-36S28B		28V	536mA				
LD15-36S48B		48V	313mA				
LD15-36D12B		+12V	625mA	-12V	625 mA		
LD15-36D15B		+15V	500mA	-15V	500mA		
LD15-36D24B		+24V	310mA	-24V	310mA		
LD15-48S05B		48V (36~72V)	5V	3000mA			
LD15-48S12B	12V		1200 mA				
LD15-48S15B	15V		1000mA				
LD15-48S18B	18V		833mA				
LD15-48S24B	24V		630mA				
LD15-48S28B	28V		536mA				
LD15-48S48B	48V		313mA				
LD15-48D12B	+12V		625mA	-12V	625 mA		
LD15-48D15B	+15V		500mA	-15V	500mA		
LD15-48D24B	+24V		310mA	-24V	310mA		
LD15-110S12B	110V (72~144V)	12V	1200 mA				
LD15-110S15B		15V	1000mA				
LD15-110S18B		18V	833mA				
LD15-110S24B		24V	630mA				
LD15-110S28B		28V	536mA				
LD15-110S48B		48V	313mA				
LD15-110D12B		+12V	625mA	-12V	625 mA		
LD15-110D15B		+15V	500mA	-15V	500mA		
LD15-110D24B		+24V	310mA	-24V	310mA		

**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.

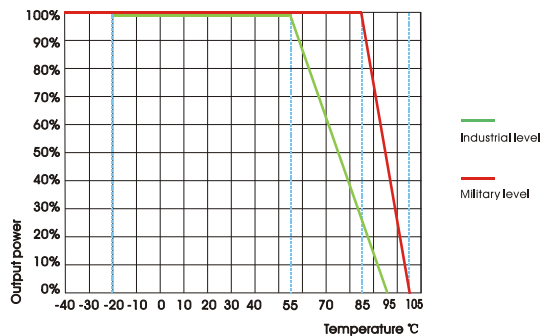
## Mechanical Dimension



BOTTOM VIEW

UNIT:mm(inch)

## Temperature Curve



## Mechanical Data

WATT	L x W x H	Packing No.
15W	50.80*25.40*10.16mm(2*1*0.4inch)	B

## Pin Assignment

PIN	1	2	3	4	5					
Single O/P	+Vin	-Vin	GND	NP	Vo					
Dual O/P	+Vin	-Vin	-Vo2	COM	+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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