

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℃, Rated resistant load unless other wispecified

<i>Input Feature</i>	<i>Min</i>	<i>Nom</i>	<i>Max</i>	<i>Notes</i>
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 ⁵ 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

LD12-12S05	12 V (9~18V)	5V	2400mA					
LD12-12S09		9V	1330mA					
LD12-12S12		12V	1000mA					
LD12-12S15		15V	800mA					
LD12-12S18		18V	667mA					
LD12-12S24		24V	500mA					
LD12-12S28		28V	429mA					
LD12-12S48		48V	250mA					
LD12-12D3V3		+3.3V	1200 mA	-3.3V	1200 mA			
LD12-12D05		+5V	1200 mA	-5V	1200 mA			
LD12-12D09		+9V	660 mA	-9V	660 mA			
LD12-12D12		+12V	500 mA	-12V	500 mA			
LD12-12D15		+15V	400 mA	-15V	400 mA			
LD12-12D24		+24V	250 mA	-24V	250 mA			
LD12-18S05		18V (9~36V)	5V	2400mA				
LD12-18S09			9V	1330mA				
LD12-18S12	12V		1000mA					
LD12-18S15	15V		800mA					
LD12-18S18	18V		667mA					
LD12-18S24	24V		500mA					
LD12-18S28	28V		429mA					
LD12-18S48	48V		250mA					
LD12-18D3V3	+3.3V		1200 mA	-3.3V	1200 mA			
LD12-18D05	+5V		1200 mA	-5V	1200 mA			
LD1218□D09	+9V		660 mA	-9V	660 mA			
LD12-18D12	+12V		500 mA	-12V	500 mA			
LD12-18D15	+15V		400 mA	-15V	400 mA			
LD12-18D24	+24V		250 mA	-24V	250 mA			
LD12-24S05	24V (18~36V)	5V	2400mA					
LD12-24S09		9V	1330mA					
LD12-24S12		12V	1000mA					
LD12-24S15		15V	800mA					

LD12-24S18		18V	667mA				
LD12-24S24		24V	500mA				
LD12-24S28		28V	429mA				
LD12-24S48		48V	250mA				
LD12-24D3V3		+3.3V	1200 mA	-3.3V	1200 mA		
LD12-24D05		+5V	1200 mA	-5V	1200 mA		
LD12-24D09		+9V	660 mA	-9V	660 mA		
LD12-24D12		+12V	500 mA	-12V	500 mA		
LD12-24D15		+15V	400 mA	-15V	400 mA		
LD12-24D24		+24V	250 mA	-24V	250 mA		
LD12-36S05		36V (18~72V)	5V	2400mA			
LD12-36S09	9V		1330mA				
LD12-36S12	12V		1000mA				
LD12-36S15	15V		800mA				
LD12-36S18	18V		667mA				
LD12-36S24	24V		500mA				
LD12-36S28	28V		429mA				
LD12-36S48	48V		250mA				
LD12-36D3V3	+3.3V		1200 mA	-3.3V	1200 mA		
LD12-36D05	+5V		1200 mA	-5V	1200 mA		
LD12-36D09	+9V		660 mA	-9V	660 mA		
LD12-36D12	+12V		500 mA	-12V	500 mA		
LD12-36D15	+15V		400 mA	-15V	400 mA		
LD12-36D24	+24V		250 mA	-24V	250 mA		
LD12-48S05	48V (36~72V)	5V	2400mA				
LD12-48S09		9V	1330mA				
LD12-48S12		12V	1000mA				
LD12-48S15		15V	800mA				
LD12-48S18		18V	667mA				
LD12-48S24		24V	500mA				
LD12-48S28		28V	429mA				
LD12-48S48		48V	250mA				

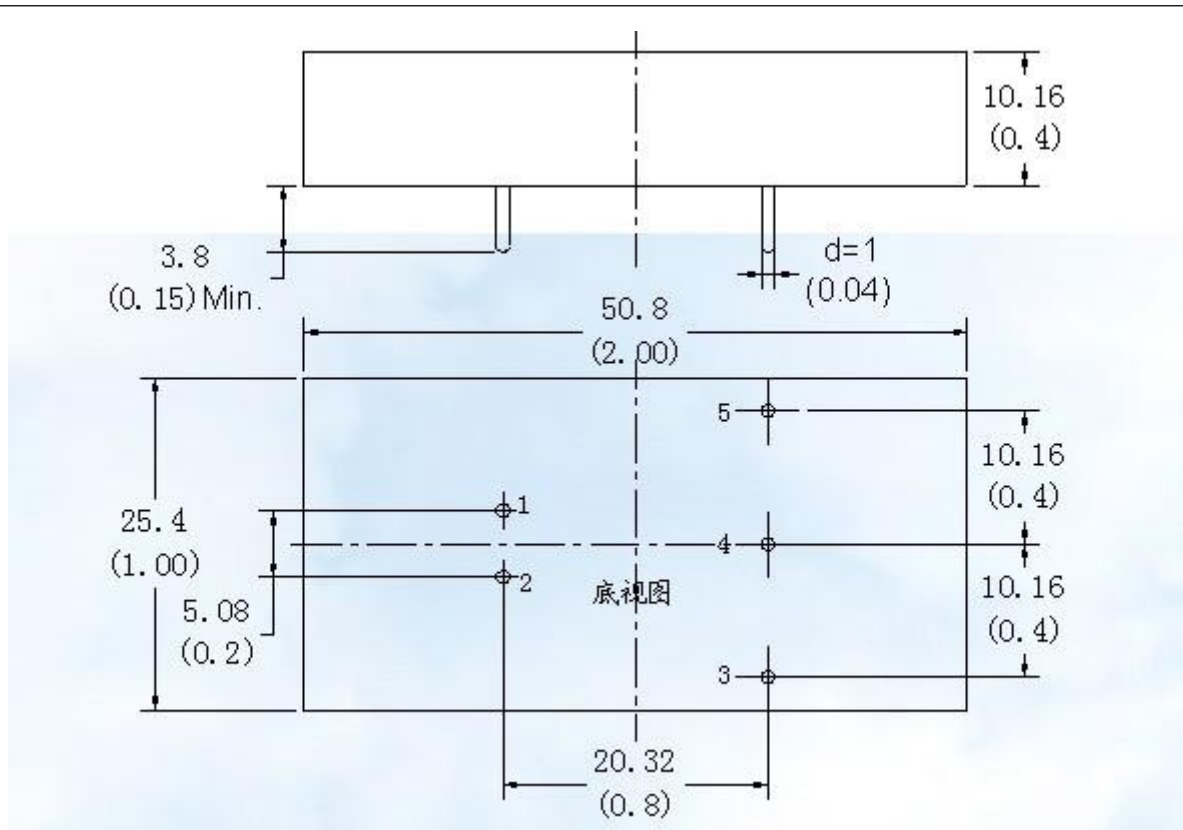
LD12-48D3V3		+3.3V	1200 mA	-3.3V	1200 mA		
LD12-48D05		+5V	1200 mA	-5V	1200 mA		
LD12-48D09		+9V	660 mA	-9V	660 mA		
LD12-48D12		+12V	500 mA	-12V	500 mA		
LD12-48D15		+15V	400 mA	-15V	400 mA		
LD12-48D24		+24V	250 mA	-24V	250 mA		
LD12-110S05	110V (72~144V)	5V	2400mA				
LD12-110S09		9V	1330mA				
LD12-110S12		12V	1000mA				
LD12-110S15		15V	800mA				
LD12-110S18		18V	667mA				
LD12-110S24		24V	500mA				
LD12-110S28		28V	429mA				
LD12-110S48		48V	250mA				
LD12-110D3V3		+3.3V	1200 mA	-3.3V	1200 mA		
LD12-110D05		+5V	1200 mA	-5V	1200 mA		
LD12-110D09		+9V	660 mA	-9V	660 mA		
LD12-110D12		+12V	500 mA	-12V	500 mA		
LD12-110D15		+15V	400 mA	-15V	400 mA		
LD12-110D24		+24V	250 mA	-24V	250 mA		

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.

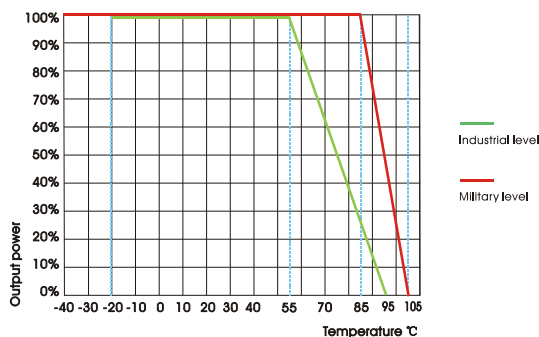
Mechanical Dimension



BOTTON VIEW

UNIT:mm(inch)

Temperature Curve



Mechanical Data

WATT	L x W x H	Packing No.
12W	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.