

### 25-40W DC-DC converter

#### Typical Performance

- ⊙ Wide Input voltage range (2:1/4:1)
- ⊙ Typical Efficiency:80%
- ⊙ Switching frequency: 300KHz
- ⊙ Output Short Circuit Protection,Self-furbish,Over Current Protection
- ⊙ Input-output isolate 1500VDC
- ⊙ PCB Board in-line type installs
- ⊙ Metal Case



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

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)	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			≤200us

## General Feature

Efficiency			80% typical
Switching Frequency			300KHz
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		1000VDC
	Input-Case		500VDC
	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 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
LD25-12S3V3	12 V (9~18V)	3.3V	5000mA				

LD25-12S05		5V	5000mA				
LD25-12S09		9V	2770mA				
LD25-12S12		12V	2080mA				
LD25-12S15		15V	1660mA				
LD25-12S24		24V	1040mA				
LD25-12D05		+5V	2500 mA	-5V	2500 mA		
LD25-12D09		+9V	1390 mA	-9V	1390 mA		
LD25-12D12		+12V	1040 mA	-12V	1040 mA		
LD25-12D15		+15V	830 mA	-15V	830 mA		
LD25-12D24		+24V	520 mA	-24V	520 mA		
LD25-12T5-12		+5V	3500 mA	+12V	250 mA	-12V	250 mA
LD25-12T5-15		+5V	3500 mA	+15V	200 mA	-15V	200 mA
LD25-18S3V3		3.3V	5000mA				
LD25-18S05		5V	5000mA				
LD25-18S09		9V	2770mA				
LD25-18S12		12V	2080mA				
LD25-18S15		15V	1660mA				
LD25-18S24		24V	1040mA				
LD25-18D05	18V (9~36V)	+5V	2500 mA	-5V	2500 mA		
LD25-18D09		+9V	1390 mA	-9V	1390 mA		
LD25-18D12		+12V	1040 mA	-12V	1040 mA		
LD25-18D15		+15V	830 mA	-15V	830 mA		
LD25-18D24		+24V	520 mA	-24V	520 mA		
LD25-18T5-12		+5V	3500 mA	+12V	250 mA	-12V	250 mA
LD25-18T5-15		+5V	3500 mA	+15V	200 mA	-15V	200 mA
LD25-24S3V3		3.3V	5000mA				
LD25-24S05		5V	5000mA				
LD25-24S09		9V	2770mA				
LD25-24S12	24V (18~36V)	12V	2080mA				
LD25-24S15		15V	1660mA				
LD25-24S24		24V	1040mA				
LD25-24D05		+5V	2500 mA	-5V	2500 mA		
LD25-24D09		+9V	1390 mA	-9V	1390 mA		

LD25-24D12		+12V	1040 mA	-12V	1040 mA			
LD25-24D15		+15V	830 mA	-15V	830 mA			
LD25-24D24		+24V	520 mA	-24V	520 mA			
LD25-24T5-12		+5V	3500 mA	+12V	250 mA	-12V	250 mA	
LD25-24T5-15		+5V	3500 mA	+15V	200 mA	-15V	200 mA	
LD25-36S3V3	36V (18~72V)	3.3V	5000mA					
LD25-36S05		5V	5000mA					
LD25-36S09		9V	2770mA					
LD25-36S12		12V	2080mA					
LD25-36S15		15V	1660mA					
LD25-36S24		24V	1040mA					
LD25-36D05		+5V	2500 mA	-5V	2500 mA			
LD25-36D09		+9V	1390 mA	-9V	1390 mA			
LD25-36D12		+12V	1040 mA	-12V	1040 mA			
LD25-36D15		+15V	830 mA	-15V	830 mA			
LD25-36D24		+24V	520 mA	-24V	520 mA			
LD25-36T5-12		+5V	3500 mA	+12V	250 mA	-12V	250 mA	
LD25-36T5-15		+5V	3500 mA	+15V	200 mA	-15V	200 mA	
LD25-48S3V3		48V (36~72V)	3.3V	5000mA				
LD25-48S05			5V	5000mA				
LD25-48S09	9V		2770mA					
LD25-48S12	12V		2080mA					
LD25-48S15	15V		1660mA					
LD25-48S24	24V		1040mA					
LD25-48D05	+5V		2500 mA	-5V	2500 mA			
LD25-48D09	+9V		1390 mA	-9V	1390 mA			
LD25-48D12	+12V		1040 mA	-12V	1040 mA			
LD25-48D15	+15V		830 mA	-15V	830 mA			
LD25-48D24	+24V		520 mA	-24V	520 mA			
LD25-48T5-12	+5V		3500 mA	+12V	250 mA	-12V	250 mA	
LD25-48T5-15	+5V		3500 mA	+15V	200 mA	-15V	200 mA	
LD25-110S3V3	110V (72~144V)		3.3V	5000mA				
LD25-110S05			5V	5000mA				

LD25-110S09		9V	2770mA				
LD25-110S12		12V	2080mA				
LD25-110S15		15V	1660mA				
LD25-110S24		24V	1040mA				
LD25-110D05		+5V	2500 mA	-5V	2500 mA		
LD25-110D09		+9V	1390 mA	-9V	1390 mA		
LD25-110D12		+12V	1040 mA	-12V	1040 mA		
LD25-110D15		+15V	830 mA	-15V	830 mA		
LD25-110D24		+24V	520 mA	-24V	520 mA		
LD25-110T5-12		+5V	3500 mA	+12V	250 mA	-12V	250 mA
LD25-110T5-15		+5V	3500 mA	+15V	200 mA	-15V	200 mA
LD30-12S05E		12V(9~18V)	5V	6000mA			
LD30-12S12E	12V		2500mA				
LD30-12S15E	15V		2000mA				
LD30-12S24E	24V		1250mA				
LD30-12D05E	+5V		3000mA	-5V	3000mA		
LD30-12D12E	+12V		1250mA	-12V	1250mA		
LD30-18S05E	18V(9~36V)	5V	6000mA				
LD30-18S12E		12V	2500mA				
LD30-18S15E		15V	2000mA				
LD30-18S24E		24V	1250mA				
LD30-18D05E		+5V	3000mA	-5V	3000mA		
LD30-18D12E		+12V	1250mA	-12V	1250mA		
LD30-24S05E	24V(18~36V)	5V	6000mA				
LD30-24S12E		12V	2500mA				
LD30-24S15E		15V	2000mA				
LD30-24S24E		24V	1250mA				
LD30-24D05E		+5V	3000mA	-5V	3000mA		
LD30-24D12E		+12V	1250mA	-12V	1250mA		
LD30-36S05E	36V(18~72V)	5V	6000mA				
LD30-36S12E		12V	2500mA				
LD30-36S15E		15V	2000mA				
LD30-36S24E		24V	1250mA				

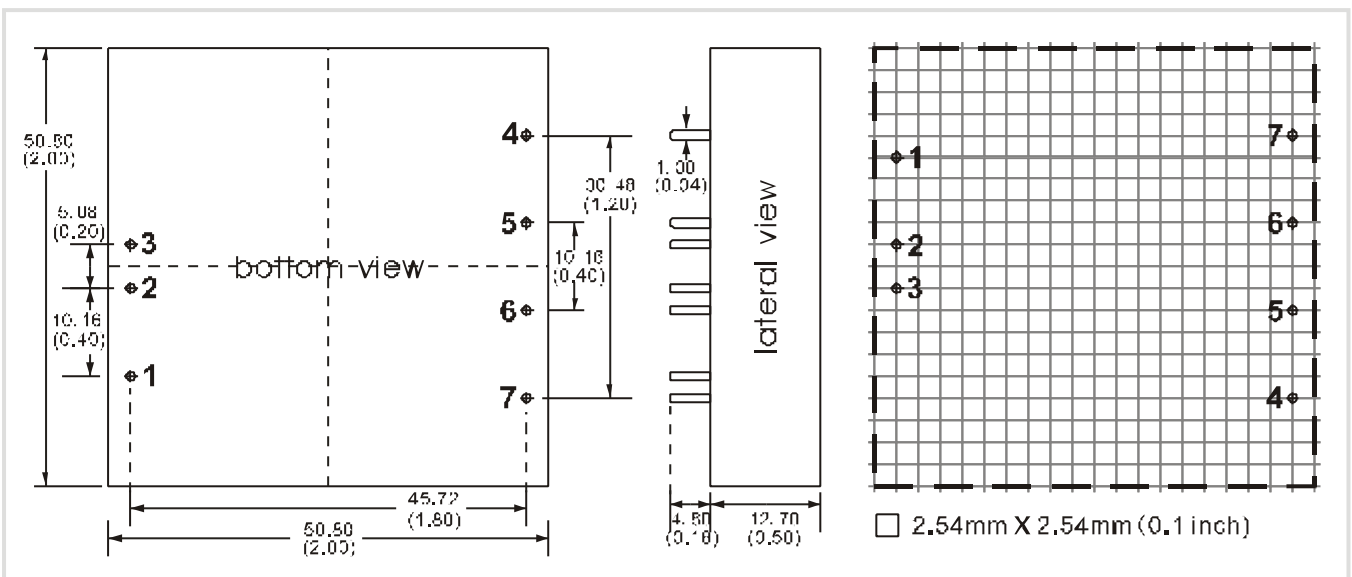
LD30-36D05E		+5V	3000mA	-5V	3000mA			
LD30-36D12E		+12V	1250mA	-12V	1250mA			
LD30-48S05E	48V(36~72V)	5V	6000mA					
LD30-48S12E		12V	2500mA					
LD30-48S15E		15V	2000mA					
LD30-48S24E		24V	1250mA					
LD30-48D05E		+5V	3000mA	-5V	3000mA			
LD30-48D12E		+12V	1250mA	-12V	1250mA			
LD30-110S05E		110V(72~144V)	5V	6000mA				
LD30-110S12E			12V	2500mA				
LD30-110S15E	15V		2000mA					
LD30-110S24E	24V		1250mA					
LD30-110D05E	+5V		3000mA	-5V	3000mA			
LD30-110D12E	+12V		1250mA	-12V	1250mA			
LD40-12S05	12V(9~18V)	5V	8000mA					
LD40-12S12		12V	3330mA					
LD40-12S15		15V	2670mA					
LD40-12S24		24V	1670mA					
LD40-24S05	24V(18~36V)	5V	8000mA					
LD40-24S12		12V	3330mA					
LD40-24S15		15V	2670mA					
LD40-48S24		24V	1670mA					
LD40-48S05	48V(36~72V)	5V	8000mA					
LD40-48S12		12V	3330mA					
LD40-48S15		15V	2670mA					
LD40-48S24		24V	1670mA					
LD40-110S05	110V(72~144V)	5V	8000mA					
LD40-110S12		12V	3330mA					
LD40-110S15		15V	2670mA					
LD40-110S24		24V	1670mA					

**\*NOTE:**

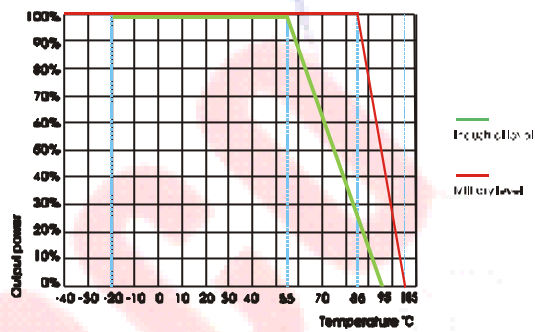
(1)This series, if the nominal input is 12V,the module does not support long time short circuit protection, short time should be controlled within 20 S.

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

## Mechanical Dimension



## Temperature Curve



## Mechanical Data

Packing	L x W x H	Packing No.
25W	50.80 x 50.80 x 12.70mm(2*2*0.5inch)	
E(30W)	50.80 x 50.80 x 12.70mm(2*2*0.5inch)	
(E)40W	50.80 x 50.80 x 12.70mm(2*2*0.5inch)	

## Pin Assignment

PIN	1	2	3	4	5	6	7			
S	REM	-Vin	+Vin	NP	+Vout	GND	TRIM			
D	REM	-Vin	+Vin	+Vout1	COM	-Vout2	TRIM			
DI	REM	-Vin	+Vin	+Vout1	GND1	+Vout2	GND2			
T	REM	-Vin	+Vin	+Vout3	+Vout1	COM	-Vout2			

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