

6W DC/DC converter

Typical Performance

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



Technology parameter Test condition:General Nominal Line,Tc=25℃, Rated resistant load unless other wise specified

Input Feature	Min	Nom	Max	Note
Input voltage(Vdc)	4.5	5	9	W 2:1
	9(start violtage 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 violtage 9.5V)	18	36	W 4:1
	18	36	72	W 4:1
Remote ON/OFF				Non

Under voltage protect

Output Feature

Voltage accuracy		Vo1,Vo2	±1.0%, ±3.0%
Line regulation	Nominal Load,full voltage input range	Vo1,Vo2	±0.2%, ±1.5%
Load regulation	Nominal Input Voltage,20% ~ 100%	Vo1,Vo2	±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		

Peak Deviation	25% Rated Load Vary	$\Delta V_{o1}/V_{o1}$	$\leq \pm 5.0\%$
Dynamic Response Setting Time			$\leq 200\mu s$

General Feature

Efficiency	Normal input , full load		80% typical
Switching frequency			300KHz typical
Operating temperature	Free air	Industrial level	-25°C ~ +55°C
Storage temperature			-40°C ~ +105°C
Max case temperature			+90°C
Relative humidity			10%~90%
Isolation Voltage		Input-Output	1500VDC
		Input-Case	1500VDC
		Output-Case	500VDC
Isolation Resistance			10M Ω
Temperature Coefficient			$\leq \pm 0.02\%/^{\circ}C$
Cooling			Natural Convection
case material			Metal case
MTBF	BELLCORE TR332, (25°C)		2X10 ⁵ Hrs

NOTE:

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

(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 uF/A of the output capacitance , the current is rated output

Product Nomination Method

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	①	②	③	④	⑤	⑥	⑦
①	L:Wide voltage input			⑥	output voltage		
②	Power adaptation mode: D (DC-DC)			⑦	I: Dual Route output Isolate		
③	Output power(W)						
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		
LD6-05S05B	5V (4.5~9V)	5V	1200mA						
LD6-05S09B		9V	667mA						
LD6-05S12B		12V	500mA						
LD6-05S15B		15V	400mA						
LD6-05S18B		18V	333mA						
LD6-05S24B		24V	250mA						
LD6-05S28B		28V	214mA						
LD6-05S48B		48V	125mA						
LD6-05D05B		+5V	600mA	-5V	600mA				
LD6-05D12B		+12V	250 mA	-12V	250 mA				
LD6-05D15B		+15V	200 mA	-15V	200 mA				
LD6-05D24B		+24V	125mA	-24V	125mA				
LD6-12S05B		12V(9~18V)	5V	1200mA					
LD6-12S09B			9V	667mA					
LD6-12S12B	12V		500mA						
LD6-12S15B	15V		400mA						
LD6-12S18B	18V		333mA						
LD6-12S24B	24V		250mA						
LD6-12S28B	28V		214mA						
LD6-12S48B	48V		125mA						
LD6-12D05B	+5V		600mA	-5V	600mA				
LD6-12D12B	+12V		250 mA	-12V	250 mA				
LD6-12D15B	+15V		200 mA	-15V	200 mA				
LD6-12D24B	+24V		125mA	-24V	125mA				
LD6-18S05B	18V(9~36V)		5V	1200mA					
LD6-18S09B			9V	667mA					
LD6-18S12B		12V	500mA						
LD6-18S15B		15V	400mA						
LD6-18S24B		24V	250mA						
LD6-18D05B		+5V	600mA	-5V	600mA				
LD6-18D12B		+12V	250 mA	-12V	250 mA				
LD6-18D15B		+15V	200 mA	-15V	200 mA				

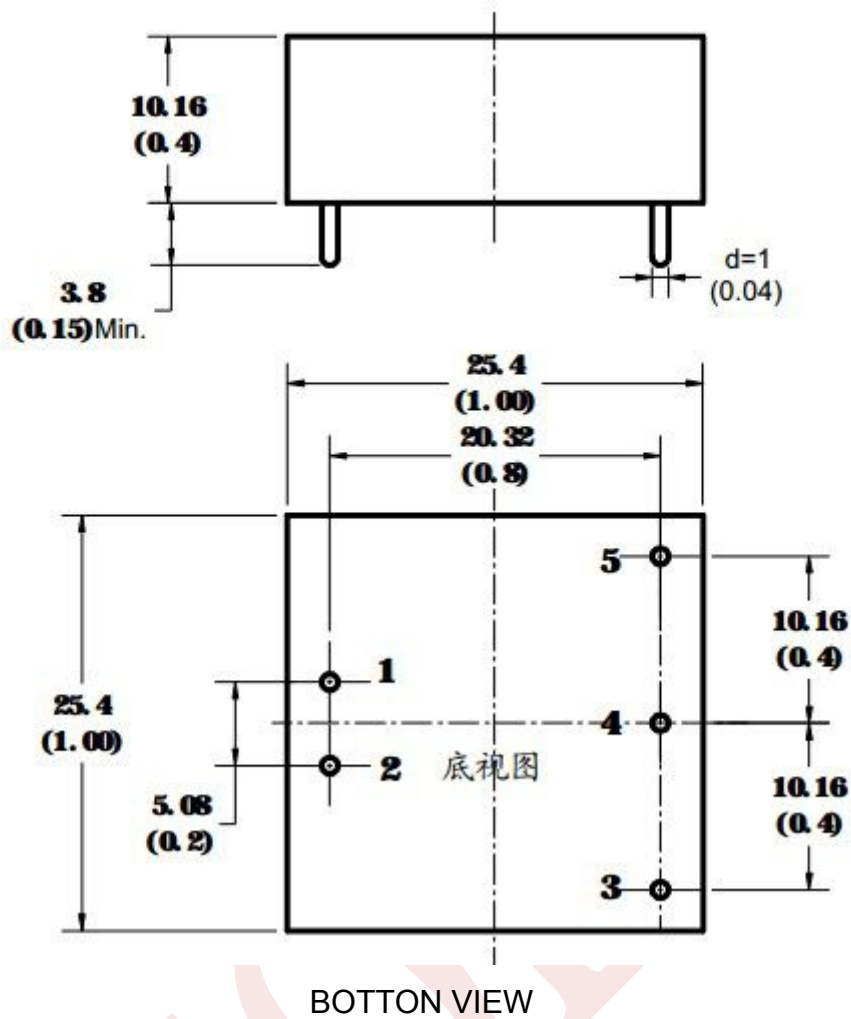
LD6-18D24B		+24V	125mA	-24V	125mA				
LD6-24S05B	24V(18~36V)	5V	1200mA						
LD6-24S09B		9V	667mA						
LD6-24S12B		12V	500mA						
LD6-24S15B		15V	400mA						
LD6-24S18B		18V	333mA						
LD6-24S24B		24V	250mA						
LD6-24S28B		28V	214mA						
LD6-24S48B		48V	125mA						
LD6-24D05B		+5V	600mA	-5V	600mA				
LD6-24D12B		+12V	250 mA	-12V	250 mA				
LD6-24D15B		+15V	200 mA	-15V	200 mA				
LD6-24D24B		+24V	125mA	-24V	125mA				
LD6-36S05B		36V(18~72V)	5V	1200mA					
LD6-36S09B			9V	667mA					
LD6-36S12B	12V		500mA						
LD6-36S15B	15V		400mA						
LD6-36S18B	18V		333mA						
LD6-36S24B	24V		250mA						
LD6-36S28B	28V		214mA						
LD6-36S48B	48V		125mA						
LD6-36D05B	+5V		600mA	-5V	600mA				
LD6-36D12B	+12V		250 mA	-12V	250 mA				
LD6-36D15B	+15V		200 mA	-15V	200 mA				
LD6-36D24B	+24V		125mA	-24V	125mA				
LD6-48S05B	48V(36~72V)		5V	1200mA					
LD6-48S09B			9V	667mA					
LD6-48S12B		12V	500mA						
LD6-48S15B		15V	400mA						
LD6-48S18B		18V	333mA						
LD6-48S24B		24V	250mA						
LD6-48S28B		28V	214mA						
LD6-48S48B		48V	125mA						

LD6-48D05B		+5V	600mA	-5V	600mA			
LD6-48D12B		+12V	250 mA	-12V	250 mA			
LD6-48D15B		+15V	200 mA	-15V	200 mA			
LD6-48D24B		+24V	125mA	-24V	125mA			
LD6-110S05B	110V(72~144V)	5V	1200mA					
LD6-110S09B		9V	667mA					
LD6-110S12B		12V	500mA					
LD6-110S15B		15V	400mA					
LD6-110S18B		18V	333mA					
LD6-110S24B		24V	250mA					
LD6-110S28B		28V	214mA					
LD6-110S48B		48V	125mA					
LD6-110D05B		+5V	600mA	-5V	600mA			
LD6-110D12B		+12V	250 mA	-12V	250 mA			
LD6-110D15B		+15V	200 mA	-15V	200 mA			
LD6-110D24B		+24V	125mA	-24V	125mA			

***NOTE:**

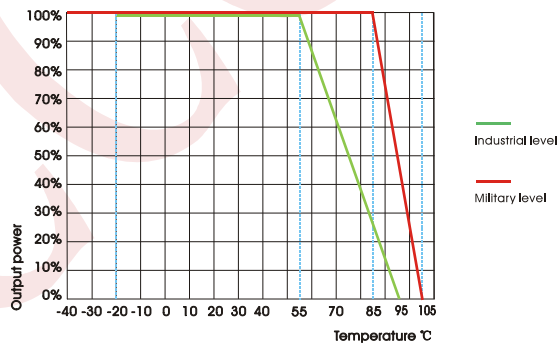
The output ripple noise (peak value) measurement, please reference module test instructions.

Mechanical Dimension



UNIT:mm(inch)

Temperature Graph



Mechanical Data

WATT	L x W x H	Packing No.
6W	25.40 *25.40 *10.16mm(1*1*0.4inch)	B

Pin Assignment

PIN	1	2	3	4	5					
Single O/P	+Vin	-Vin	GND	NP	Vo1					
Dual O/P	+Vin	-Vin	-Vout2	COM	+Vout1					

*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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