

Typical Performance

FEATURES

- 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



3-Years Product Warranty

Technology parameter Test condition:General Nominal Line,Tc=25°C , 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 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

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℃ ~ +55℃
Storage temperature			-40℃ ~ +105℃
Max case temperature			+90℃
Relative humidity			10%~90%
Isolation Voltage		Input-Output	1000VDC
		Input-Case	1500VDC
		Output-Case	500VDC
Isolation Resistance			10MΩ
Temperature Coefficient			$\leq \pm 0.02\%/^{\circ}C$
Cooling			Natural Convection
case material			Metal case
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 uF/A of the output capacitance , the current is rated output current.

Product Nomination Method

exam ple	L D 5 - 48 S 05 I						
	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	Output voltage / current
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		VO1		VO2		VO3		
		V	mA	V	mA	V	mA	
LD5-05S3V3B	5V (4.5~9V)	3.3V	1000mA					
LD5-05S05B		5V	1000mA					
LD5-05S09B		9V	550mA					
LD5-05S12B		12V	410mA					
LD5-05S15B		15V	330mA					
LD5-05S18B		18V	278mA					
LD5-05S24B		24V	210mA					
LD5-05S28B		28V	179mA					
LD5-05S48B		48V	104mA					
LD5-05D3V3B		+3.3V	500 mA	-3.3V	500 mA			
LD5-05D05B		+5V	500 mA	-5V	500 mA			
LD5-05D09B		+9V	275 mA	-9V	275 mA			
LD5-05D12B		+12V	205 mA	-12V	205 mA			
LD5-05D15B		+15V	165 mA	-15V	165 mA			
LD5-05D24B		+24V	100 mA	-24V	100 mA			
LD5-12S3V3B		12V(9~18V)	3.3V	1000mA				
LD5-12S05B	5V		1000mA					
LD5-12S09B	9V		550mA					
LD5-12S12B	12V		410mA					
LD5-12S15B	15V		330mA					
LD5-12S18B	18V		278mA					
LD5-12S24B	24V		210mA					
LD5-12S28B	28V		179mA					
LD5-12S48B	48V		104mA					
LD5-12D3V3B	+3.3V		500 mA	-3.3V	500 mA			
LD5-12D05B	+5V		500 mA	-5V	500 mA			
LD5-12D09B	+9V		275 mA	-9V	275 mA			
LD5-12D12B	+12V		205 mA	-12V	205 mA			
LD5-12D15B	+15V		165 mA	-15V	165 mA			
LD5-12D24B	+24V		100 mA	-24V	100 mA			

LD5-18S3V3B	18V(9~36V)	3.3V	1000mA					
LD5-18S05B		5V	1000mA					
LD5-18S09B		9V	550mA					
LD5-18S12B		12V	410mA					
LD5-18S15B		15V	330mA					
LD5-18S18B		18V	278mA					
LD5-18S24B		24V	210mA					
LD5-18S28B		28V	179mA					
LD5-18S48B		48V	104mA					
LD5-18D3V3B		+3.3V	500 mA	-3.3V	500 mA			
LD5-18D05B		+5V	500 mA	-5V	500 mA			
LD5-18D09B		+9V	275 mA	-9V	275 mA			
LD5-18D12B		+12V	205 mA	-12V	205 mA			
LD5-18D15B		+15V	165 mA	-15V	165 mA			
LD5-18D24B		+24V	100 mA	-24V	100 mA			
LD5-24S3V3B		24V(18~36V)	3.3V	1000mA				
LD5-24S05B			5V	1000mA				
LD5-24S09B	9V		550mA					
LD5-24S12B	12V		410mA					
LD5-24S15B	15V		330mA					
LD5-24S18B	18V		278mA					
LD5-24S24B	24V		210mA					
LD5-24S28B	28V		179mA					
LD5-24S48B	48V		104mA					
LD5-24D3V3B	+3.3V		500 mA	-3.3V	500 mA			
LD5-24D05B	+5V		500 mA	-5V	500 mA			
LD5-24D09B	+9V		275 mA	-9V	275 mA			
LD5-24D12B	+12V		205 mA	-12V	205 mA			
LD5-24D15B	+15V		165 mA	-15V	165 mA			
LD5-24D24B	+24V		100 mA	-24V	100 mA			
LD5-36S3V3B	36V(18~72V)		3.3V	1000mA				
LD5-36S05B			5V	1000mA				

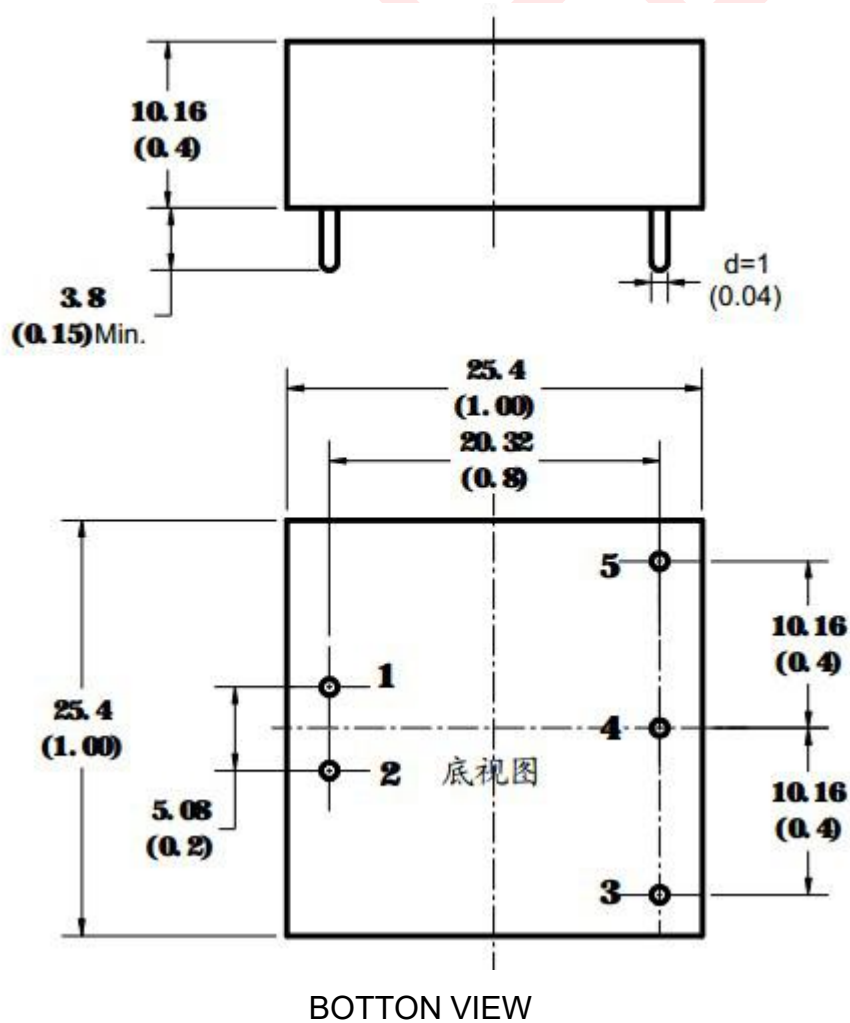
LD5-36S09B		9V	550mA					
LD5-36S12B		12V	410mA					
LD5-36S15B		15V	330mA					
LD5-36S18B		18V	278mA					
LD5-36S24B		24V	210mA					
LD5-36S28B		28V	179mA					
LD5-36S48B		48V	104mA					
LD5-36D3V3B		+3.3V	500 mA	-3.3V	500 mA			
LD5-36D05B		+5V	500 mA	-5V	500 mA			
LD5-36D09B		+9V	275 mA	-9V	275 mA			
LD5-36D12B		+12V	205 mA	-12V	205 mA			
LD5-36D15B		+15V	165 mA	-15V	165 mA			
LD5-36D24B		+24V	100 mA	-24V	100 mA			
LD5-48S3V3B		48V(36~72V)	3.3V	1000mA				
LD5-48S05B	5V		1000mA					
LD5-48S09B	9V		550mA					
LD5-48S12B	12V		410mA					
LD5-48S15B	15V		330mA					
LD5-48S18B	18V		278mA					
LD5-48S24B	24V		210mA					
LD5-48S28B	28V		179mA					
LD5-48S48B	48V		104mA					
LD5-48D3V3B	+3.3V		500 mA	-3.3V	500 mA			
LD5-48D05B	+5V		500 mA	-5V	500 mA			
LD5-48D09B	+9V		275 mA	-9V	275 mA			
LD5-48D12B	+12V		205 mA	-12V	205 mA			
LD5-48D15B	+15V		165 mA	-15V	165 mA			
LD5-48D24B	+24V	100 mA	-24V	100 mA				
LD5-110S3V3B	110V(72~114V)	3.3V	1000mA					
LD5-110S05B		5V	1000mA					
LD5-110S09B		9V	550mA					
LD5-110S12B		12V	410mA					

LD5-110S15B		15V	330mA					
LD5-110S18B		18V	278mA					
LD5-110S24B		24V	210mA					
LD5-110S28B		28V	179mA					
LD5-110S48B		48V	104mA					
LD5-110D3V3B		+3.3V	500 mA	-3.3V	500 mA			
LD5-110D05B		+5V	500 mA	-5V	500 mA			
LD5-110D09B		+9V	275 mA	-9V	275 mA			
LD5-110D12B		+12V	205 mA	-12V	205 mA			
LD5-110D15B		+15V	165 mA	-15V	165 mA			
LD5-110D24B		+24V	100 mA	-24V	100 mA			

*NOTE:

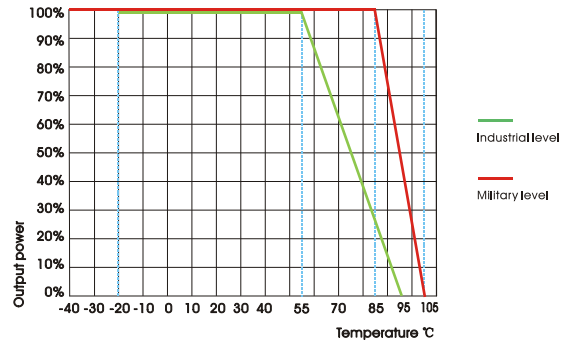
The output ripple noise (peak value) measurement, please reference module test instructions.

Mechanical Dimension



UNIT:mm(inch)

Temperature Graph



Mechanical Data

WATT	L x W x H	Packing No.
5W	25.40 x 25.40 x 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.