ECCO Electronics Technology Co.,ltd

10W DC/DC converter

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 wisespecified

Input Feature	Min	Nom	Max	Notes
Input voltage(Vdc)	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

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

LD10-12S3V3B	12 V（9~18V）	3.3V	2000mA				
LD10-12S05B		5V	2000mA				
LD10-12S09B		9V	1110mA				
LD10-12S12B		12V	830mA				
LD10-12S15B		15V	660mA				
LD10-12S18B		18V	556mA				
LD10-12S24B		24V	410mA				
LD10-12S28B		28V	357mA				
LD10-12S48B		48V	208mA				
LD10-12D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-12D05B		+5V	1000 mA	-5V	1000 mA		
LD10-12D09B		+9V	550 mA	-9V	550 mA		
LD10-12D12B		+12V	410 mA	-12V	410 mA		
LD10-12D15B		+15V	330 mA	-15V	330 mA		
LD10-12D24B		+24V	210 mA	-42V	210 mA		
LD10-18S3V3B	18V(9~36V)	3.3V	2000mA				
LD10-18S05B		5V	2000mA				
LD10-18S09B		9V	1110mA				
LD10-18S12B		12V	830mA				
LD10-18S15B		15V	660mA				
LD10-18S18B		18V	556mA				
LD10-18S24B		24V	410mA				
LD10-18S28B		28V	357mA				
LD10-18S48B		48V	208mA				
LD10-18D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-18D05B		+5V	1000 mA	-5V	1000 mA		
LD10-18D09B		+9V	550 mA	-9V	550 mA		
LD10-18D12B		+12V	410 mA	-12V	410 mA		
LD10-18D15B		+15V	330 mA	-15V	330 mA		
LD10-18D24B		+24V	210 mA	-42V	210 mA		
LD10-24S3V3B	24V（18~36V）	3.3V	2000mA				
LD10-24S05B		5V	2000mA				

LD10-24S09B		9V	1110mA				
LD10-24S12B		12V	830mA				
LD10-24S15B		15V	660mA				
LD10-24S18B		18V	556mA				
LD10-24S24B		24V	410mA				
LD10-24S28B		28V	357mA				
LD10-24S48B		48V	208mA				
LD10-24D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-24D05B		+5V	1000 mA	-5V	1000 mA		
LD10-24D09B		+9V	550 mA	-9V	550 mA		
LD10-24D12B		+12V	410 mA	-12V	410 mA		
LD10-24D15B		+15V	330 mA	-15V	330 mA		
LD10-24D24B		+24V	210 mA	-42V	210 mA		
LD10-36S3V3B	36V(18~72V)	3.3V	2000mA				
LD10-36S05B		5V	2000mA				
LD10-36S09B		9V	1110mA				
LD10-36S12B		12V	830mA				
LD10-36S15B		15V	660mA				
LD10-36S18B		18V	556mA				
LD10-36S24B		24V	410mA				
LD10-36S28B		28V	357mA				
LD10-36S48B		48V	208mA				
LD10-36D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-36D05B		+5V	1000 mA	-5V	1000 mA		
LD10-36D09B		+9V	550 mA	-9V	550 mA		
LD10-36D12B		+12V	410 mA	-12V	410 mA		
LD10-36D15B		+15V	330 mA	-15V	330 mA		
LD10-36D24B		+24V	210 mA	-42V	210 mA		
LD10-48S3V3B	48V（36~72V）	3.3V	2000mA				
LD10-48S05B		5V	2000mA				
LD10-48S09B		9V	1110mA				
LD10-48S12B		12V	830mA				

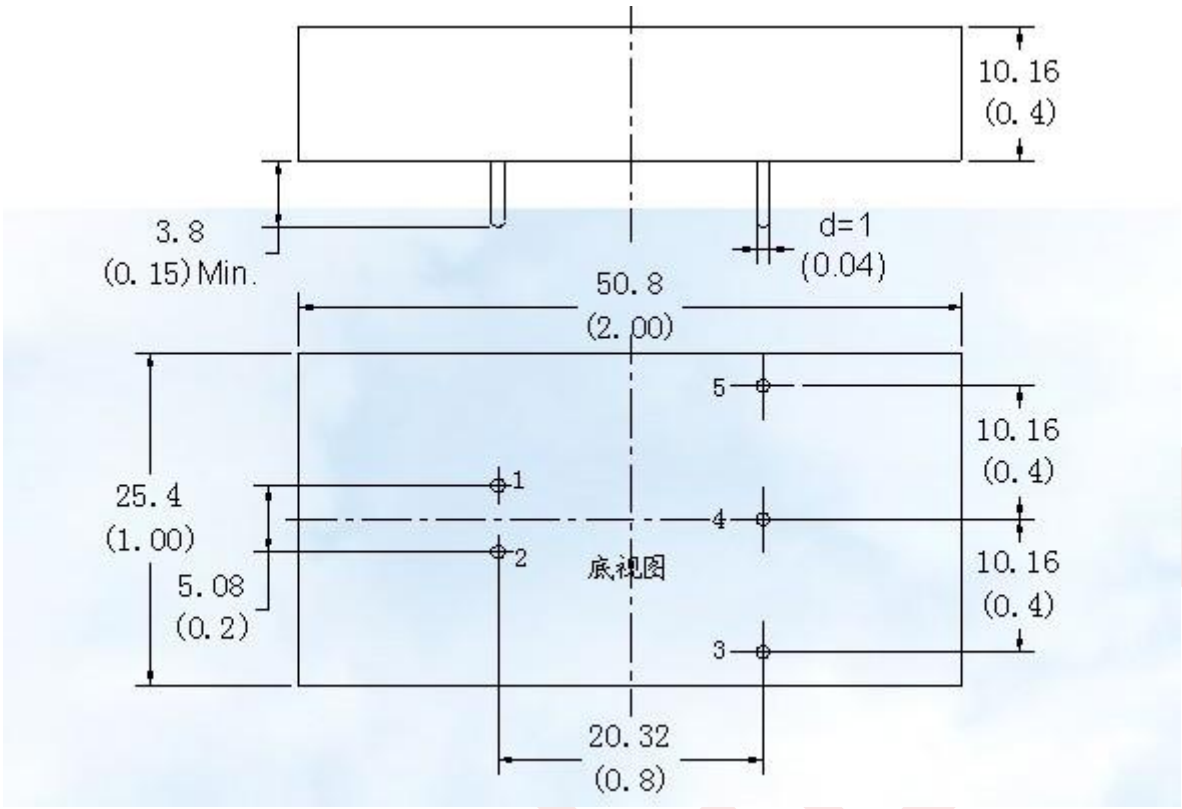
LD10-48S15B		15V	660mA				
LD10-48S18B		18V	556mA				
LD10-48S24B		24V	410mA				
LD10-48S28B		28V	357mA				
LD10-48S48B		48V	208mA				
LD10-48D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-48D05B		+5V	1000 mA	-5V	1000 mA		
LD10-48D09B		+9V	550 mA	-9V	550 mA		
LD10-48D12B		+12V	410 mA	-12V	410 mA		
LD10-48D15B		+15V	330 mA	-15V	330 mA		
LD10-48D24B		+24V	210 mA	-42V	210 mA		
LD10-110S3V3B	110V（72~144V）	3.3V	2000mA				
LD10-110S05B		5V	2000mA				
LD10-110S09B		9V	1110mA				
LD10-110S12B		12V	830mA				
LD10-110S15B		15V	660mA				
LD10-110S18B		18V	556mA				
LD10-110S24B		24V	410mA				
LD10-110S28B		28V	357mA				
LD10-110S48B		48V	208mA				
LD10-110D3V3B		+3.3V	1000 mA	-3.3V	1000 mA		
LD10-110D05B		+5V	1000 mA	-5V	1000 mA		
LD10-110D09B		+9V	550 mA	-9V	550 mA		
LD10-110D12B		+12V	410 mA	-12V	410 mA		
LD10-110D15B		+15V	330 mA	-15V	330 mA		
LD10-110D24B		+24V	210 mA	-42V	210 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.

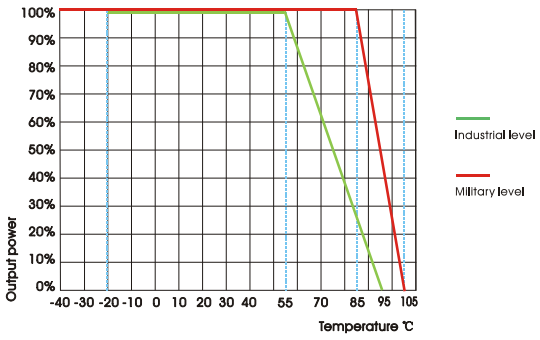
Mechanical Dimension



BOTTON VIEW

UNIT:mm(inch)

Temperature Curve



Mechanical Data

WATT	L x W x H	Packing No.
10W	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.