

FEATURES:

- Wide input range
- Continuous short-circuit protection,self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40℃~+85℃
- No additional components required
- Stable performance and high reliability (MTBF≥2X10⁵Hrs)
- Industry standard pin-out
- FMetal case
- DIP package



Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Normalal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD20-12S3V3B	12	9-18	3.3	4000			
LD20-12S05B			5	4000			
LD20-12S09B			9	2220			
LD20-12S12B			12	1660			
LD20-12S15B			15	1330			
LD20-12S18B			18	1111			
LD20-12S24B			24	830			
LD20-12S28B			28	714m			
LD20-12S48B			48	410			
LD20-12D3V3B			+3.3	2000	-3.3	2000	
LD20-12D05B			+5	2000	-5	2000	
LD20-12D09B			+9	1110	-9	1110	
LD20-12D12B			+12	830	-12	830	
LD20-12D15B			+15	660	-15	660	
LD20-12D24B			+24	410	-24	410	
LD20-18S3V3B	18	9-36	3.3	4000			
LD20-18S05B			5	4000			
LD20-18S09B			9	2220			
LD20-18S12B			12	1660			
LD20-18S15B			15	1330			
LD20-18S18B			18	1111			
LD20-18S24B			24	830			
LD20-18S28B			28	714			
LD20-18S48B			48	410			
LD20-18D3V3B			+3.3	2000	-3.3	2000	
LD20-18D05B			+5	2000	-5	2000	
LD20-18D09B			+9	1110	-9	1110	
LD20-18D12B			+12	830	-12	830	

LD20-18D15B			+15	660	-15	660	
LD20-18D24B			+24	410	-24V	410	
LD20-24S3V3B	24	18-36	3.3	4000			
LD20-24S05B			5	4000			
LD20-24S09B			9	2220			
LD20-24S12B			12	1660			
LD20-24S15B			15	1330			
LD20-24S18B			18	1111			
LD20-24S24B			24	830			
LD20-24S28B			28	714			
LD20-24S48B			48	410			
LD20-24D3V3B			+3.3	2000	-3.3	2000	
LD20-24D05B			+5	2000	-5	2000	
LD20-24D09B			+9	1110	-9	1110	
LD20-24D12B			+12	830	-12	830	
LD20-24D15B			+15	660	-15	660	
LD20-24D24B			+24	410	-24	410	
LD20-36S3V3B	36	18-75	3.3	4000			
LD20-36S05B			5	4000			
LD20-36S09B			9	2220			
LD20-36S12B			12	1660			
LD20-36S15B			15	1330			
LD20-36S18B			18	1111			
LD20-36S24B			24	830			
LD20-36S28B			28	714			
LD20-36S48B			48	410			
LD20-36D3V3B			+3.3	2000	-3.3	2000	
LD20-36D05B			+5	2000	-5	2000	
LD20-36D09B			+9	1110	-9	1110	
LD20-36D12B			+12	830	-12	830	
LD20-36D15B			+15	660	-15	660	
LD20-36D24B			+24	410	-24	410	
LD20-48S3V3B	48	36-72	3.3	4000			
LD20-48S05B			5	4000			
LD20-48S09B			9	2220			
LD20-48S12B			12	1660			
LD20-48S15B			15	1330			
LD20-48S18B			18	1111			
LD20-48S24B			24	830			
LD20-48S28B			28	714			
LD20-48S48B			48	410			
LD20-48D3V3B			+3.3	2000	-3.3	2000	

LD20-48D05B			+5	2000	-5	2000	
LD20-48D09B			+9	1110	-9	1110	
LD20-48D12B			+12	830	-12	830	
LD20-48D15B			+15	660	-15	660	
LD20-48D24B			+24	410	-24	410	
LD20-110S3V3B	110	40-160	3.3	4000			
LD20-110S05B			5	4000			
LD20-110S09B			9	2220			
LD20-110S12B			12	1660			
LD20-110S15B			15	1330			
LD20-110S18B			18	1111			
LD20-110S24B			24	830			
LD20-110S28B			28	714			
LD20-110S48B			48	410			
LD20-110D3V3B			+3.3	2000	-3.3	2000	
LD20-110D05B			+5	2000	-5	2000	
LD20-110D09B			+9	1110	-9	1110	
LD20-110D12B			+12	830	-12	830	
LD20-110D15B			+15	660	-15	660	
LD20-110D24B			+24	410	-24	410	

customized accepted,pls contact sales for details

Input Specifications

Input Voltage	Input Voltage Range (Vdc)	Nom(Vdc)	Max (Vdc)
	9-18	12	18
	9-36	18	36
	18-36	24	36
	18-75	36	75
	36-72	48	72
	40-160	110	160

Hot Plug

Unavailable

Output Specifications

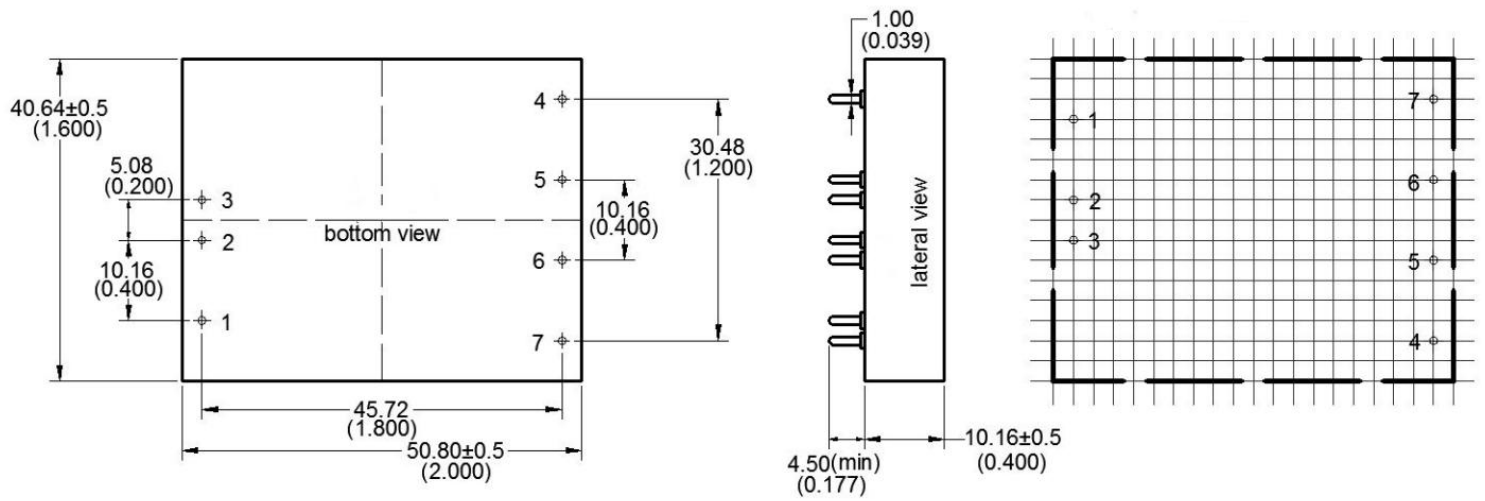
Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±2%	0-100% load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load
Load Regulation	±0.5%	±1%	5%-100% load
Ripple&Noise	60mVp-p	80mVp-p	20MHz bandwidth, 5%-100% load
Over-voltage Protection	-	160%Vo	110%Vo(Min)
Over-current Protection	-	200%Io	110%Io(Min)
Short-circuit Protection	Continuous, self-recovery		

General Specifications

Switching Frequency	280KHz(Typ)	PWM mode
MTBF	2X10 ⁵ Hrs	MIL-HDBK-217F@25℃
Isolation (Input-Output)	1.5KVDC	
Operating Temperature	-40~+85℃	
Storage Temperature	-55~+125℃	
Storage Humidity	5-95%RH	Non-condensing
Cooling Method	Free air convection	
Case Material	Aluminum alloy	
Weight	45g (Typ)	

**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.

Dimensions and Recommended Layout

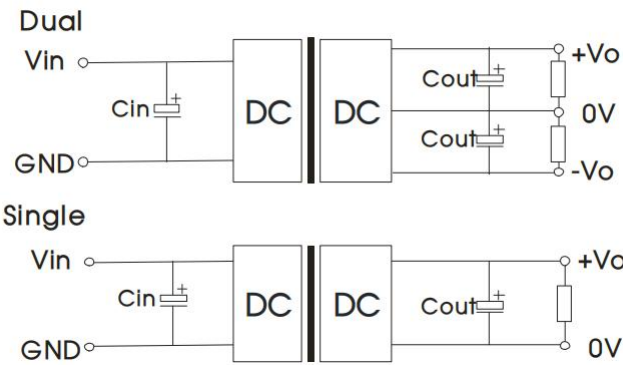


Unit:mm(inch)

Pins

Pin	Single	Dual	
1	CTRL	CTRL	
2	-Vin	-Vin	
3	+Vin	+Vin	
4	NO PIN	+Vo	
5	+Vo	COM	
6	-Vo	-Vo	
7	TRIM	TRIM	

Recommended Circuit



Recommended input and output capacitor values				
V_{in}	C_{in}	C_{out}		
5	100uF/16V			
12	100uF/25V			
24	10uF/50V-47uF/50V			
48	10uF/100V-47uF/100V			

- Noted**
1. The product should be used within the specified range; otherwise, it may cause permanent damage to the product.
 2. If the product operates beyond its load range, it cannot be guaranteed that all performance indicators of the product comply with those in this manual.
 3. Unless otherwise specified, all the above data were measured at $T_a=25^{\circ}\text{C}$, humidity $<75\%$, input nominal voltage and output rated load (pure resistance load).
 4. The above are all performance indicators of the product models listed in this manual. Some indicators of non-standard models may exceed the above requirements. For specific situations, you can directly contact our technical personnel.
 5. Product specification changes will not be notified separately. Please pay attention to the latest manual published on our company's official website.

*The final interpretation right of the product belongs to ECCO ELECTRONICS.