

FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- No additional components required
- Stable performance and high reliability (MTBF: 2×10^5 Hrs)
- Industry standard pin-out
- Metal case
- DIP package



Selection Guide

Part No.	INPUT		OUTPUT				Capacitive Load(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD5-05S3V3B	5	4.5-9	3.3	1000			
LD5-05S05B			5	1000			
LD5-05S09B			9	550			
LD5-05S12B			12	410			
LD5-05S15B			15	330			
LD5-05S18B			18	278			
LD5-05S24B			24	210			
LD5-05S28B			28	179			
LD5-05S48B			48	104			
LD5-05D3V3B			+3.3	500	-3.3	500	
LD5-05D05B			+5	500	-5	500	
LD5-05D09B			+9	275	-9	275	
LD5-05D12B			+12	205	-12	205	
LD5-05D15B			+15	165	-15	165	
LD5-05D24B			+24	100	-24	100	
LD5-12S3V3B	12	9-18	3.3	1000			
LD5-12S05B			5	1000			
LD5-12S09B			9	550			
LD5-12S12B			12	410			
LD5-12S15B			15	330			
LD5-12S18B			18	278			
LD5-12S24B			24	210			
LD5-12S28B			28	179			
LD5-12S48B			48	104			
LD5-12D3V3B			+3.3	500	-3.3	500	
LD5-12D05B			+5	500	-5	500	
LD5-12D09B			+9	275	-9	275	
LD5-12D12B			+12	205	-12	205	

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

LD5-36D05B			+5	500	-5	500	
LD5-36D09B			+9	275	-9	275	
LD5-36D12B			+12	205	-12	205	
LD5-36D15B			+15	165	-15	165	
LD5-36D24B			+24	100	-24	100	
LD5-48S3V3B	48	36-72	3.3	1000			
LD5-48S05B			5	1000			
LD5-48S09B			9	550			
LD5-48S12B			12	410			
LD5-48S15B			15	330			
LD5-48S18B			18	278			
LD5-48S24B			24	210			
LD5-48S28B			28	179			
LD5-48S48B			48	104			
LD5-48D3V3B			+3.3	500	-3.3	500	
LD5-48D05B			+5	500	-5	500	
LD5-48D09B			+9	275	-9	275	
LD5-48D12B			+12	205	-12	205	
LD5-48D15B			+15	165	-15	165	
LD5-48D24B			+24	100	-24	100	
LD5-110S3V3B	110	40-160	3.3	1000			
LD5-110S05B			5	1000			
LD5-110S09B			9	550			
LD5-110S12B			12	410			
LD5-110S15B			15	330			
LD5-110S18B			18	278			
LD5-110S24B			24	210			
LD5-110S28B			28	179			
LD5-110S48B			48	104			
LD5-110D3V3B			+3.3	500	-3.3	500	
LD5-110D05B			+5	500	-5	500	
LD5-110D09B			+9	275	-9	275	
LD5-110D12B			+12	205	-12	205	
LD5-110D15B			+15	165	-15	165	
LD5-110D24B			+24	100	-24	100	

customized accepted,pls contact sales for details

Input Specifications

Input Voltage	Input Voltage Range (Vdc)	Nom(Vdc)	Max (Vdc)
	4.5-9	5	9
	9-18	12	18
	9-36	18	36

	18-36	24	36
	18-72	36	72
	36-72	48	72
	40-160	110	160
Hot Plug	Unavailable		

Output Specifications

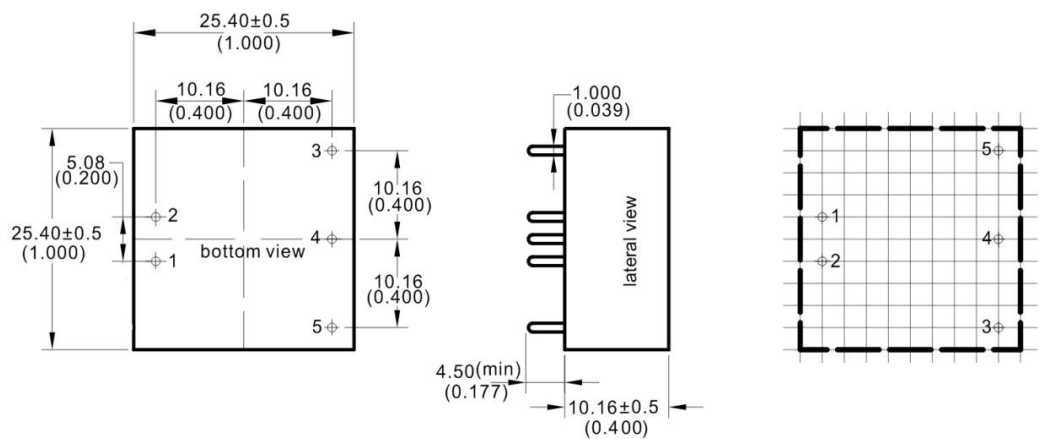
Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±2%	0-100% load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load
Load Regulation	±0.5%	±1%	5%-100% load
Ripple&Noise	60mVp-p	80mVp-p	20MHz bandwidth, 5%-100% load
Startup delay time	50ms	-	
Over-voltage Protection	-	160%Vo	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	2X105Hrs	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	15g (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

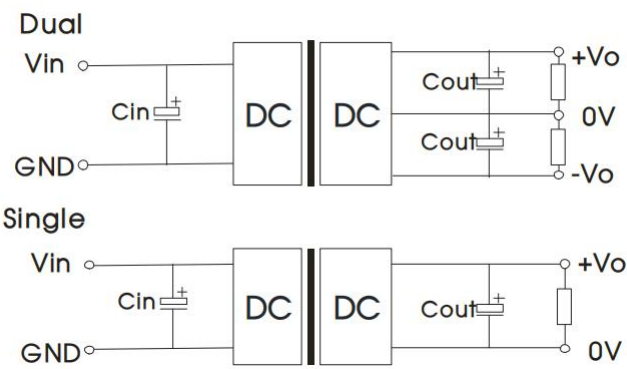


Unit:mm(inch)

Pins

Pin	Single	Dual	
1	-Vin	-Vin	
2	+Vin	+Vin	
3	+Vo	+Vo	
4	No Pin	COM	
5	-Vo	-Vo	

Recommended Circuit



Recommended input and output capacitor values

Vin	Cin	Cout		
5	100uF/16V			
12	100uF/25V			
24	10uF/50V-47uF/50V			
48	10uF/100V-47uF/100V			

Note

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.