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≥1000K hours)
- Industry standard pin-out
- Metal case
- DIP package

Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Norminal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD12-12S05	12	9-18	5	2400			
LD12-12S09			9	1330			
LD12-12S12			12	1000			
LD12-12S15			15	800			
LD12-12S18			18	667			
LD12-12S24			24	500			
LD12-12S28			28	429			
LD12-12S48			48	250			
LD12-12D3V3			+3.3	1200	-3.3	1200	
LD12-12D05			+5	1200	-5	1200	
LD12-12D09			+9	660	-9	660	
LD12-12D12			+12	500	-12	500	
LD12-12D15			+15	400	-15	400	
LD12-12D24			+24	250	-24	250	
LD12-18S05	18	9-36	5	2400			
LD12-18S09			9	1330			
LD12-18S12			12	1000			
LD12-18S15			15	800			
LD12-18S18			18	667			
LD12-18S24			24	500			
LD12-18S28			28	429			
LD12-18S48			48	250			
LD12-18D3V3			+3.3	1200	-3.3	1200	
LD12-18D05			+5	1200	-5	1200	
LD1218□D09			+9	660	-9	660	
LD12-18D12			+12	500	-12	500	
LD12-18D15			+15	400	-15	400	
LD12-18D24			+24	250	-24	250	

LD12-24S05			5	2400			
LD12-24S09			9	1330			
LD12-24S12			12	1000			
LD12-24S15			15	800			
LD12-24S18			18	667			
LD12-24S24			24	500			
LD12-24S28			28	429			
LD12-24S48			48	250			
LD12-24D3V3			+3.3	1200	-3.3	1200	
LD12-24D05	24	18-36	+5	1200	-5	1200	
LD12-24D09			+9	660	-9	660	
LD12-24D12			+12	500	-12	500	
LD12-24D15			+15	400	-15	400	
LD12-24D24			+24	250	-24	250	
LD12-36S05			5	2400			
LD12-36S09			9	1330			
LD12-36S12			12	1000			
LD12-36S15			15	800			
LD12-36S18			18	667			
LD12-36S24			24	500			
LD12-36S28			28	429			
LD12-36S48			48	250			
LD12-36D3V3			+3.3	1200	-3.3	1200	
LD12-36D05			+5	1200	-5	1200	
LD12-36D09	36	18-72	+9	660	-9	660	
LD12-36D12			+12	500	-12	500	
LD12-36D15			+15	400	-15	400	
LD12-36D24			+24	250	-24	250	
LD12-48S05			5	2400			
LD12-48S09			9	1330			
LD12-48S12			12	1000			
LD12-48S15			15	800			
LD12-48S18			18	667			
LD12-48S24			24	500			
LD12-48S28			28	429			
LD12-48S48			48V	250			
LD12-48D3V3			+3.3	1200	-3.3	1200	
LD12-48D05			+5	1200	-5	1200	
LD12-48D09			+9	660	-9	660	
LD12-48D12			+12	500	-12	500	
LD12-48D15			+15	400	-15	400	
LD12-48D24			+24	250	-24	250	

LD12-110S05	48	36-72	5	2400			
LD12-110S09			9	1330			
LD12-110S12			12	1000			
LD12-110S15			15	800			
LD12-110S18			18	667			
LD12-110S24	110	72-144	24	500			
LD12-110S28			28	429			
LD12-110S48			48	250			
LD12-110D3V3			+3.3	1200	-3.3	1200	
LD12-110D05			+5	1200	-5	1200	
LD12-110D09			+9	660	-9	660	
LD12-110D12			+12	500	-12	500	
LD12-110D15			+15	400	-15	400	
LD12-110D24			+24	250	-24	250	

customized accepted ,pls contact sales for details

Input Specifications

	Input Voltage Range（Vdc）	Nom(Vdc)	Max（Vdc）
Input Voltage	9-18	12	18
	9-36	18	36
	18-36	24	36
	18-72	36	72
	36-72	48	72
	72-144	110	144
Hot Plug	Unavailable		

Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	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	-	100mVp-p	20MHz bandwidth, 5%-100% load
Transient Recovery Time	300μs	500μs	25% load step change, Nominal input voltage
Over-voltage Protection	-	160%Vo	110%Vo(Min)
Over-current Protection	140%Io	190%Io	110%Io(Min)
Short-circuit Protection			Continuous, self-recovery

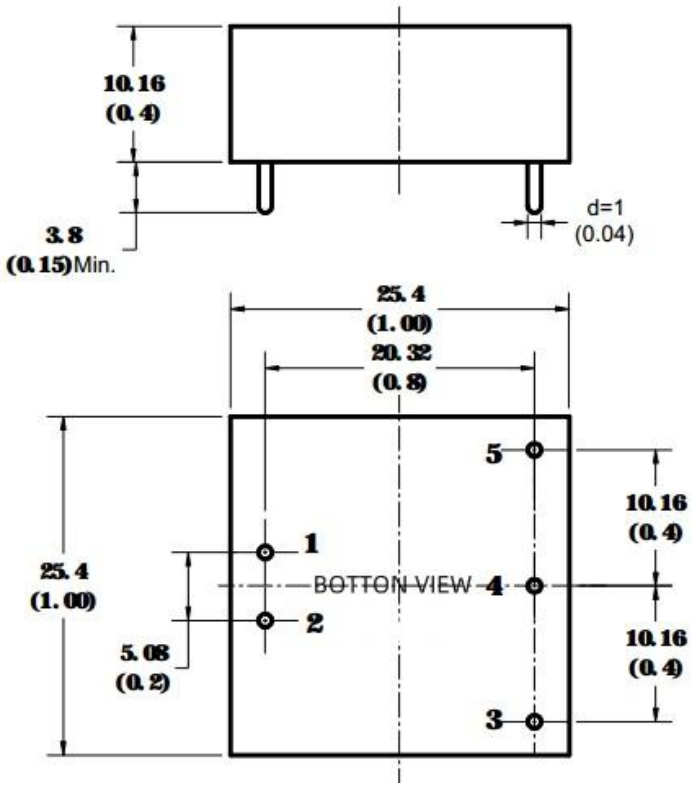
Gerneral Specifications

Switching Frequency	300KHz(Typ)	PWM mode
MTBF	1000 K hours	MIL-HDBK-217F@25℃
Temperature Coefficient	0.03%/℃	100% full load

Isolation（Input-Output）	1.5KVDC	
Insulation Resistance	1000MΩ	Input-output resistance 500Vdc
Operating Temperature	-40～+85℃	
Storage Temperature	-55～+125℃	
Storage Humidity	5-95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Aluminum alloy	
Weight	12g（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

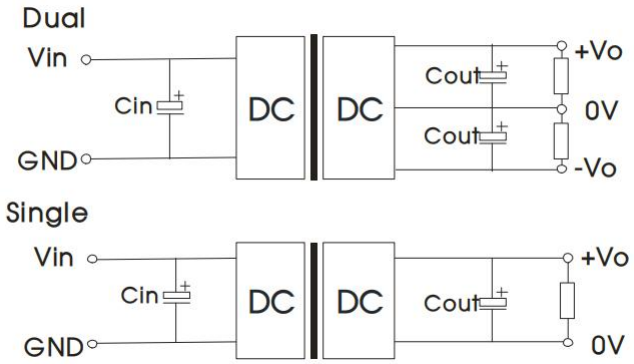


Note:
Unit: mm[inch]
Pin diameter tolerances: ± 0.10[± 0.004]
General tolerances: ± 0.50[± 0.020]

Pins

Pin	Single	Dual	
1	+Vin	+Vin	
2	-Vin	-Vin	
3	GND	-Vo2	
4	No Pin	COM	
5	Vo1	+Vo1	

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			

Noted

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.