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
- FMetal case
- DIP package

Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Norminal （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	-5V	2000	
LD20-12D09B			+9	1110	-9V	1110	
LD20-12D12B			+12	830	-12V	830	
LD20-12D15B			+15	660	-15V	660	
LD20-12D24B			+24	410	-24V	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	18-72	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	72-144	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 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)

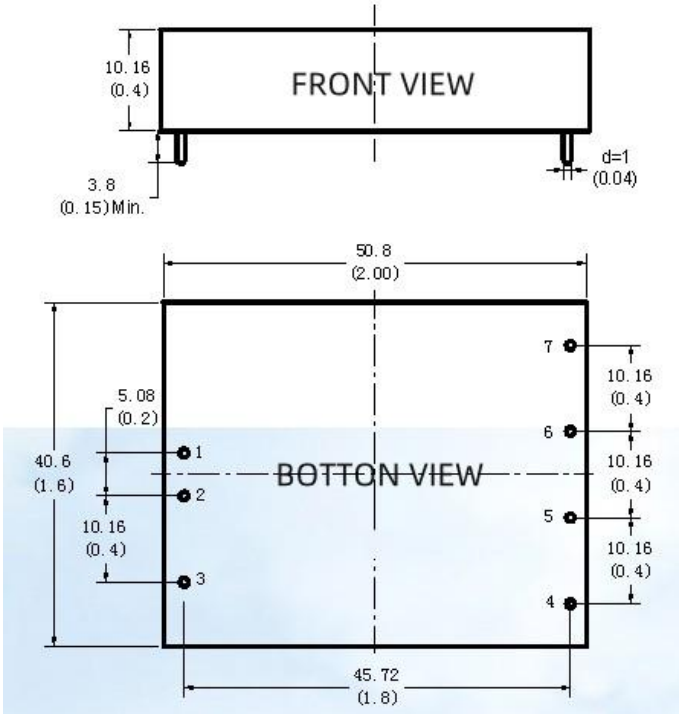
Short-circuit Protection			Continuous, self-recovery

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



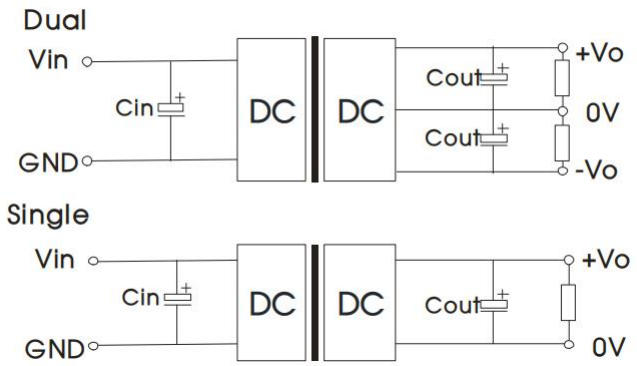
Note:
Unit: mm[inch]
Pin diameter tolerances: ± 0.10[± 0.004]
General tolerances: ± 0.50[± 0.020]

Pins

Pin	Single	Dual	

1	+Vin	+Vin	
2	-Vin	-Vin	
3	REM	REM	
4	TRIM	TRIM	
5	GND	-Vo2	
6	Vo1	COM	
7	No Pin	+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.