

FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40°C~+105°C
- No additional components required
- Stable performance and high reliability (MTBF≥2 million hours)
- Industry standard pin-out
- Industry standard 1/2 brick package



Selection Guide

| Part No. | INPUT | | OUTPUT | | | | CapacitiveLoad(μF) |
|--------------|--------------|-------------|----------------|-------------|----------------|-------------|--------------------|
| | Normal (Vdc) | Range (Vdc) | Voltage (V1dc) | current (A) | Voltage (V2dc) | current (A) | |
| LD300Q-24S12 | 24 | 18-36 | 12 | 25 | | | |
| LD300Q-12S24 | | | 15 | 12.5 | | | |
| LD300Q-12S28 | | | 24 | 10.7 | | | |
| LD300Q-18S32 | | | 32 | 9.4 | | | |

customized accepted, pls contact sales for details

Input Specifications

| | | | |
|---------------------|---------------------------|----------|-----------|
| Input Voltage Range | Input Voltage Range (Vdc) | Nom(Vdc) | Max (Vdc) |
| | 18-36 | 24 | 36 |
| Input Filter | Capacitive Filter | | |
| Ctrl | NONE | | |
| | NONE | | |
| Hot Plug | Unavailable | | |

Output Specifications

| Item | Min | Typ | Max | Test Conditions |
|--------------------------|---------------------------------------|-----------|-------------------------|-----------------|
| Voltage Accuracy | | ±1% | ±3% | |
| Line Regulation | | ±0.2% | ±1% | |
| Load Regulation | | ±0.5% | ±1% | |
| TRIM Range | | | ±10% | |
| Temperature Regulation | | ±0.02%/°C | | |
| Over Current Protect | 110% | | 160% | |
| Over Voltage Protect | 110% | | 140% | |
| Over Temperature Protect | 110% | 115% | 125% | |
| Short Circuit Protect | Continuous, self-recovery | | | |
| Dynamic Response | 4%Vo Pk deviation 100μS settling time | | 50~75% load 50~25% load | |

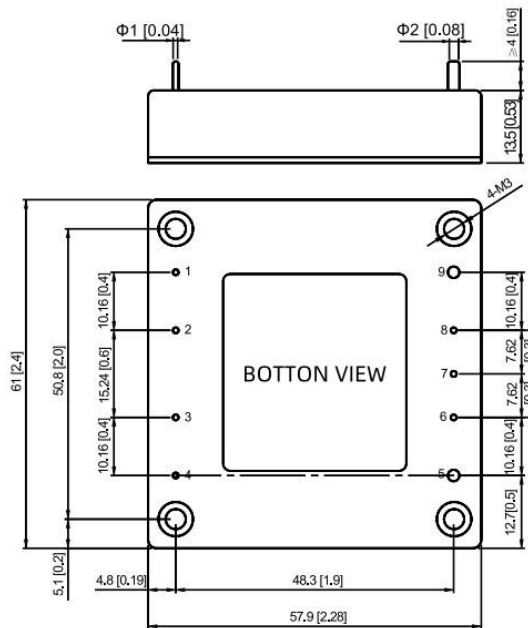
General Specifications

| | | |
|--------------------|---------|--------------|
| Isolation Resistor | 20MΩ | Input-Output |
| Isolation Voltage | 1500VDC | Input-Output |
| | 1000VDC | Input-Case |

| | | |
|------------------------|------------|---|
| | 500VDC | Output-Case |
| Switching Frequency | 300KHz | Mil HDBK 217F Tc=25°C |
| MTBF | 1×106Hrs | |
| Case Temperature | -40~+100°C | |
| Storage Temperature | -55~+125°C | |
| Relative Humidity | 10%-90% | |
| Pin Solder Temperature | 250°C | Soldering spot is 1.5mm away from case for 10 seconds |
| Hand Soldering Time | 5s | Iron Temperature 425 °C |
| Vibration | | Sine, 10Hz-55Hz, amplitude 0.35mm, X, Y, Z three directions 30min each |
| Shock | | Half-sine, peak acceleration is 300m/s ² , standard pulse duration is 6ms, X, Y, Z three 6 consecutive shocks in each direction; |
| Weight | 100g (Typ) | |

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

Dimensions and Recommended Layout



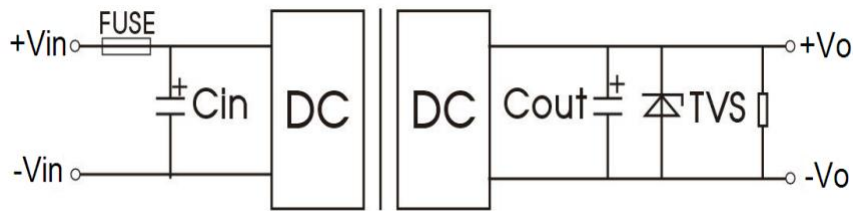
Note:
Unit: mm[inch]
Pin diameter tolerances: ± 0.10 [± 0.004]
General tolerances: ± 0.50 [± 0.020]

Pins

| Pin-Out | Mark | | |
|---------|------|--|--|
|---------|------|--|--|

| | | | |
|---|------|--|--|
| 1 | -Vin | | |
| 2 | CASE | | |
| 3 | CTRL | | |
| 4 | +Vin | | |
| 5 | +Vo | | |
| 6 | +S | | |
| 7 | TRIM | | |
| 8 | -S | | |
| 9 | -Vo | | |

Recommended Circuit



| Vo(VDC) | FUSE | Cin | Cout | TVS |
|---------|------|-------|-------|----------|
| 5 | 20A | 220uF | 470uF | SMDJ7.0A |
| 12 | | | 220uF | SMDJ15A |
| 15 | | | 220uF | SMDJ18A |
| 24 | | | 100uF | SMDJ30A |
| 28 | | | 100uF | SMDJ36A |
| 48 | | | 100uF | SMDJ64A |

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.