

ADP Series Special for LCD Power supply WIDE INPUT, NON-ISOLATED & REGULATED SINGLE POSITIVE OR NEGATIVE OUTPUT



multi-country patent protection **RoHS**

FEATURES

- I Apply to LCD display
- I Small footprint, thickness less than 7mm
- I Wide input 5 to 12VDC
- I Industry standard pinout
- I Free air convection
- I No heat sink required
- I Output voltage adjustable
- I Remote ON/OFF

APPLICATIONS

ADP series are specially designed for LCD display, these produces have wide output voltage adjustable range, and function of remote ON/OFF, free air convection, and No heat sink required while use.

MORNSUN Science & Technology Co.,Ltd.

Address: No. 5, Kehui St. 1, Kehui development center, Science Ave., Guangzhou Science City, Luogang district, Guangzhou, P.R.China.

Tel: 86-20-38601850

Fax: 86-20-38601272

<http://www.mornsun-power.com>

PRODUCT PROGRAM

| Part Number | Input Voltage(VDC) | | ON/OFF Function | Output Voltage Characteristic |
|-------------|--------------------|---------|-----------------|--|
| | Range | Nominal | | |
| ADP05C24 | 5.0-12 | 5.0 | No | Negative Voltage output non-adjustable |
| ADP05C24A | | | Yes | Negative Voltage output adjustable |
| ADP0524A | | | Yes | Positive Voltage output adjustable |
| ADP0528A | | | Yes | Positive Voltage output adjustable |

ON/OFF Function: Refer to recommended circuit.

OUTPUT SPECIFICATIONS

| Item | Part Number | Test Conditions | Min | Max | Units |
|-----------------------|-------------|---|-----|-------|-------|
| Output Voltage (Vout) | ADP05C24 | Vin=5.0-12V, RL=2K Refer to recommended circuit | -25 | -23 | V |
| | ADP05C24A | Vin=5V, R _{adj} =0-20kΩ, ON/OFF connect to GND, Refer to recommended circuit | -25 | -6.5* | |
| | ADP0524A | | 6* | 25 | |
| | ADP0528A | | 6* | 30 | |
| Ripple & Noise | ADP05C24 | Vin=5.0-12V, RL=2K, Cout=100μF Refer to recommended circuit | | 200 | mVp-p |
| | ADP05C24A | Vin=5-12VDC, RL=2K, R _{adj} =0-20kΩ ON/OFF connect to GND, Cout=100μF Refer to recommended circuit | | 200 | |
| | ADP0524A | | | 200 | |
| | ADP0528A | | | 450 | |
| Efficiency (η) | ADP05C24 | Vin=5V, RL=2K, R _{adj} =0Ω, ON/OFF connect to GND, Refer to recommended circuit | 61 | | % |
| | ADP05C24A | | 60 | | |
| | ADP0524A | | 61 | | |
| | ADP0528A | | 60 | | |

Note: *When Vin change at 5.0-12V, adjustable I Voutl (min) will change between 6-12V;

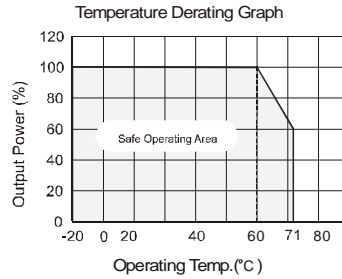
COMMON SPECIFICATION

| Item | Test Conditions | Min | Typ | Max | Units |
|-------------------------|--------------------------------|---------------------|-----|-----|---------|
| Storage Humidity | | | | 95 | % |
| Storage Temperature | | -40 | | 125 | |
| Operating Temp. | Power derating (above 60°C) | -20 | 15 | 71 | °C |
| Temp. rise at full load | | | | | |
| Lead Temperature | 1.5mm from case for 10 seconds | | | 300 | |
| Cooling | | Free air convection | | | |
| Case material | | Plastic (UL94-V0) | | | |
| MTBF | 25°C (MIL-HDBK-217F) | 1000 | | | K hours |
| Weight | | | 4.0 | | g |

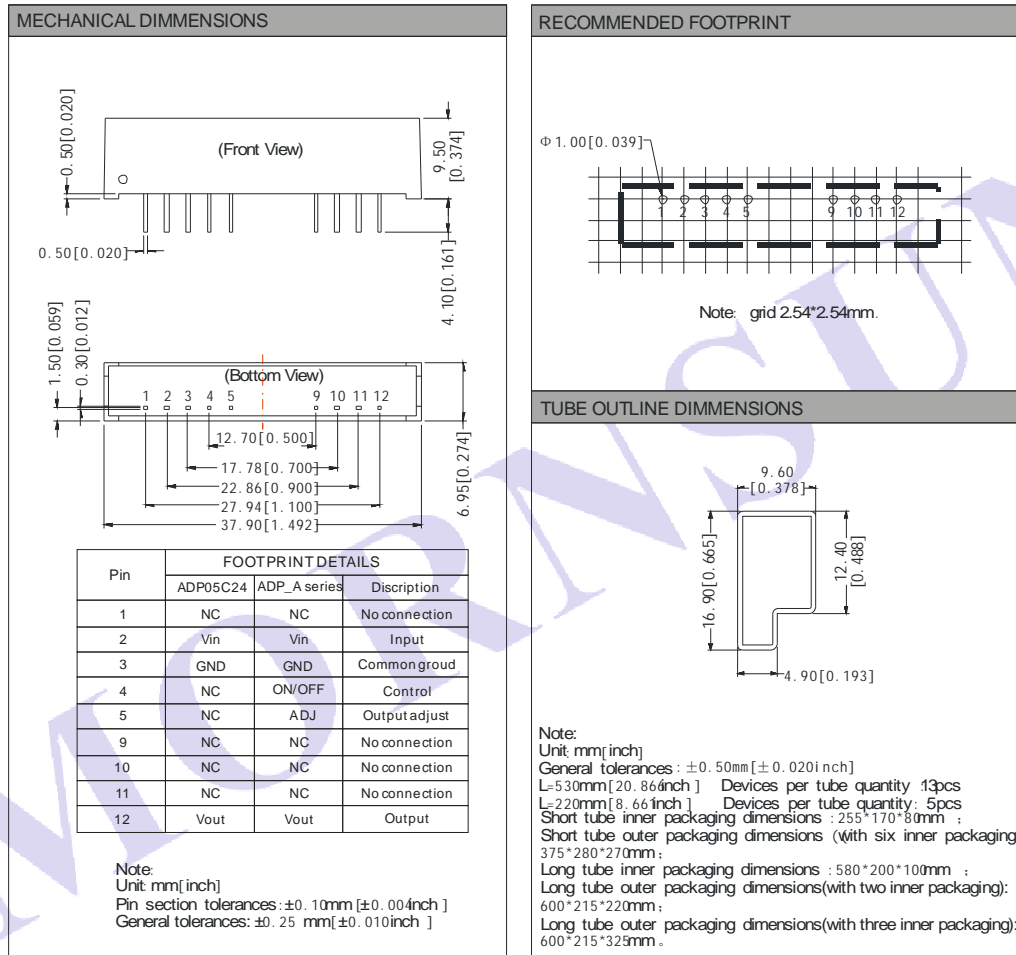
Note:

1. All specifications measured at T_A=25°C, humidity<75%, nominal input voltage and rated output load unless otherwise specified;
2. The nominal value is -24V, 24V or 28V.

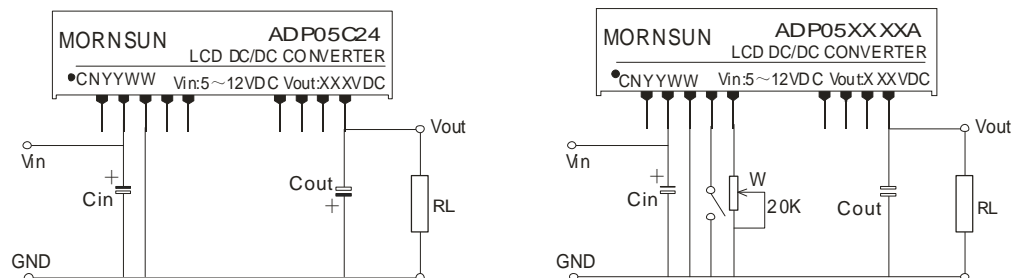
TYPICAL CHARECTERISTICS



OUTLINE DIMENSIONS & FOOTPRINT DETAILS



RECOMMENDED CIRCUIT



- Note:
1. When use the converter, filter capacitors should be connected to the input and output end, to reduce ripple and noise.
 2. Output voltage adjustor "W" is recommended to use 20K Ω , when "W" $=0\Omega$, I V_{out} I=max; "W" $=20K\Omega$, I V_{out} I=min.
 3. ON/OFF function: when switch close, natural output; when switch open, output shutdown.
 4. ADJ pin is not allowed to open, or it may cause damage to the device.