

Non-Isolated Led Driver



FEATURES:

- Constant Current Output LED Driver
- Wide Input Voltage Range
- PWM Dimming and ON/OFF Control
- Short Circuit and Overtemp. Protected
- High efficiency up to 95%

Preliminary



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

| Part Number | Input Range | Output Voltage | Output Current |
|-------------|-------------|----------------|----------------|
| | Vdc | Vdc | mA |
| LDA24-0.30 | 5-36 | 2-34 | 0-300 |
| LDA24-0.35 | 5-36 | 2-34 | 0-350 |
| LDA24-0.50 | 5-36 | 2-34 | 0-500 |
| LDA24-0.60 | 5-36 | 2-34 | 0-600 |
| LDA24-0.70 | 5-36 | 2-34 | 0-700 |

Input Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|-------------------|------------|-----|-----|-----|-------|
| Voltage Tolerance | Vo,Io Nom | 5 | 24 | 36 | Vdc |
| Filter | Capacitor | | 2.2 | | uF |

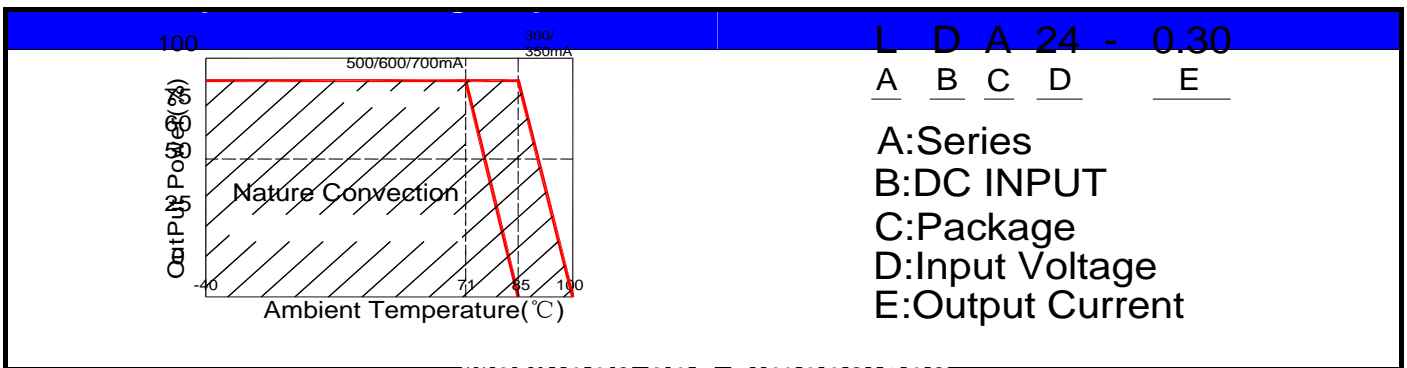
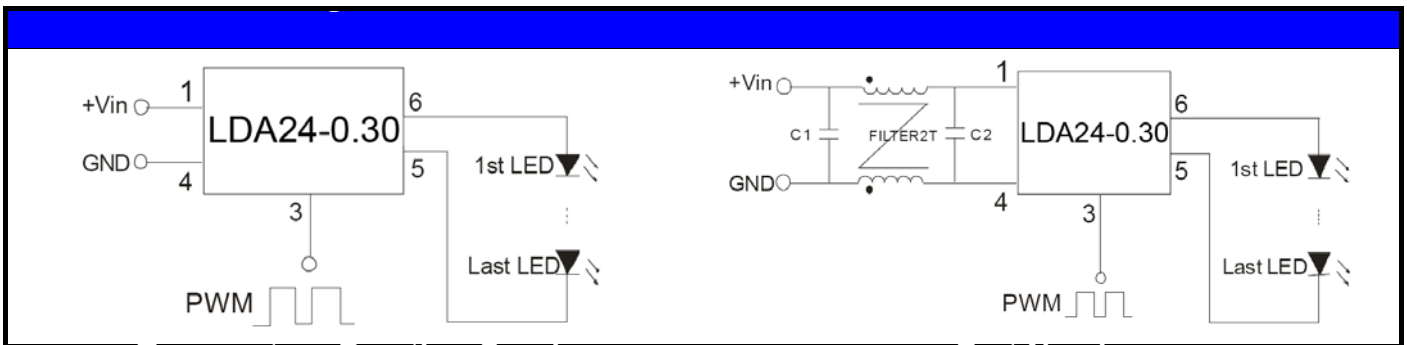
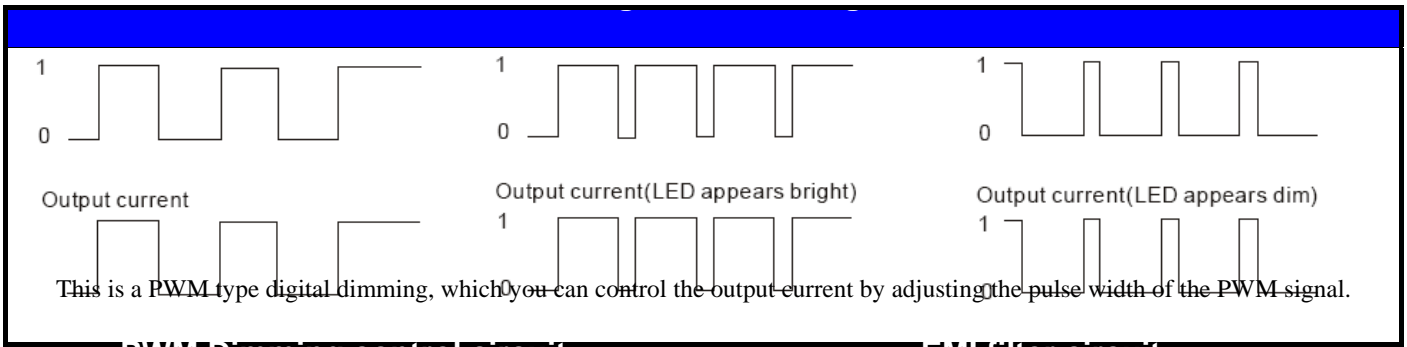
Output Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|--|-------------------------|-----|-----|--------------------|-------|
| Output Voltage Range | Vin=36V | 2 | | 34 | Vdc |
| Output Current Range | Vin - Vout >1.5~4.0V | 300 | | 700 | mA |
| Output Current Accuracy | Vin=24V, 5 LEDS | | ±5 | ±8 | % |
| Output Current Stability | Vin=24V, 1LED to 5 LEDS | | ±5 | ±10 | % |
| Efficiency at full load | | | | 95 | % |
| Ripple & Noise | BW=DC To 20MHz | | | 120 | mVp-p |
| Capacitive Load | | | | 100 | uF |
| Short Circuit Protection | Continuous | | | | |
| PWM Dimming and ON/OFF Control (let it open if not use) | | | | | |
| Remote ON/OFF | DC/DC ON | | | Open or 2.8V<Vc<6V | |
| | DC/DC OFF(Shutdown) | | | Vc<0.6V | |
| Remote pin current | Vc=5V | | | 1 | mA |
| Quiescent input current in Shutdown mode | Vin=24V, Vc <0.6V | | | 400 | uA |
| PWM frequency | | | 0.2 | 10 | KHz |

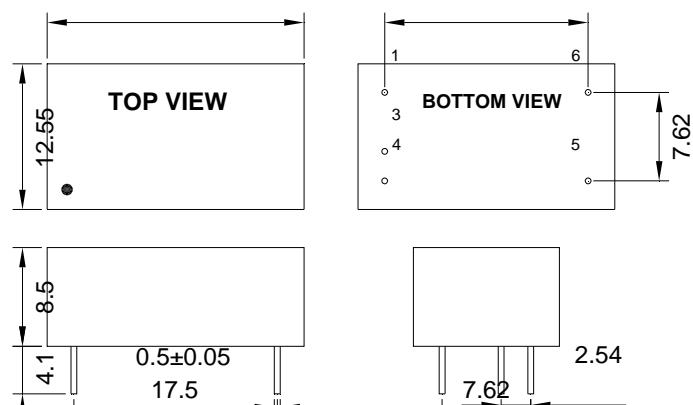
General Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|------------------------|-------------------------|-----|----------------|-----|-------|
| Operating Frequency | Full load,nominal input | | 800 | | KHz |
| Operation Temperature | 300mA / 350mA | -40 | | +85 | °C |
| | 500mA/ 600mA/ 700mA | -40 | | +71 | °C |
| Case Temperature | | | | 100 | °C |
| Humidity | Non Condensing | | | 95 | % |
| Cooling | Free air Convection | | | | |
| Wave Soldering Profile | 265°C/10 sec MAX | | | | |
| Potting Material | Epoxy (UL94-V0) | | | | |
| MTBF | MIL-HDBK-217F@25°C | | 2000000 | | Hours |
| Case material | DAP | | | | |
| Weight | | | 4.5 | | g |
| Dimensions | | | 22.1x12.55x8.5 | | mm |

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22.1 17.5



UNIT:mm Unless otherwise specified, all tolerances are ±0.25

| PIN | 1 | 3 | 4 | 5 | 6 |
|--------|------|------------|------|-------|-------|
| Single | +Vin | PWM/ON/OFF | -Vin | -Vout | +Vout |