



■ Features :

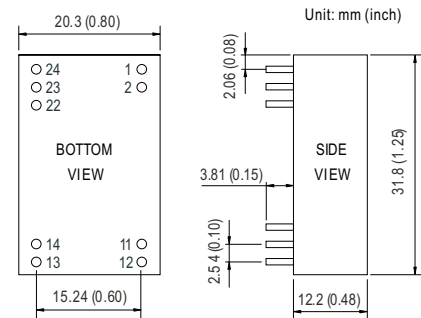
- Constant current output: 300mA to 1000mA
- Wide input voltage: 9 ~ 56VDC
- Wide output LED string voltage: 2 ~ 52VDC
- High efficiency up to 97%
- DC/DC step-down converter
- Built-in EMI filter, comply with EN55015 and FCC part15 without additional input filter and capacitors
- Built-in PWM and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully encapsulated with IP67 level
- Compact size
- Low cost, high reliability
- Suitable for driving illumination LED
- 3 years warranty



SPECIFICATION

| ORDER NO. | LDD-300H | LDD-350H | LDD-500H | LDD-600H | LDD-700H | LDD-1000H |
|--|--|----------|----------|----------|----------|-----------|
| OUTPUT | CURRENT RANGE | | | | | |
| | 300mA | | | | | |
| | 350mA | | | | | |
| | 500mA | | | | | |
| | 600mA | | | | | |
| INPUT | VOLTAGE RANGE | | | | | |
| | 2 ~ 52VDC | | | | | |
| | CURRENT ACCURACY (Typ.) | | | | | |
| | ±3% at 24VDC input ; ±4% at 48VDC input | | | | | |
| | RIPPLE & NOISE(max.) Note.2 | | | | | |
| PWM DIMMING & ON/OFF CONTROL | 150mVp-p | | | | | |
| | 150mVp-p | | | | | |
| | 150mVp-p | | | | | |
| | 200mVp-p | | | | | |
| | 200mVp-p | | | | | |
| PROTECTION | SWITCHING FREQUENCY | | | | | |
| | 40KHz ~ 1000KHz | | | | | |
| | EXTERNAL CAPACITANCE LOAD (max.) | | | | | |
| | 2.2uF | | | | | |
| | VOLTAGE RANGE | | | | | |
| ENVIRONMENT | 9 ~ 56VDC | | | | | |
| | EFFICIENCY (max.) | | | | | |
| | 97% at full load and 36VDC/48VDC input | | | | | |
| | DC CURRENT | | | | | |
| | Full load Note.3 | | | | | |
| EMC | 270mA | | | | | |
| | 320mA | | | | | |
| | 450mA | | | | | |
| | 550mA | | | | | |
| | 650mA | | | | | |
| OTHERS | 10mA | | | | | |
| | FILTER | | | | | |
| | Capacitor | | | | | |
| | REMOTE ON/OFF | | | | | |
| | Leave open if not use | | | | | |
| MTBF | Power ON with dimming: DIM ~ -Vin >2.5 ~ 6VDC or open circuit | | | | | |
| | Power OFF : DIM ~ -Vin < 0.8VDC or short | | | | | |
| | PWM FREQUENCY | | | | | |
| | 100 ~ 1KHz | | | | | |
| | QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.) | | | | | |
| 1mA at PWM dimming OFF and 24VDC input | | | | | | |
| EMC | SHORT CIRCUIT | | | | | |
| | Regulated at rated output current | | | | | |
| | Protection type: Can be continued, recovers automatically after fault condition is removed | | | | | |
| | OVER TEMPERATURE | | | | | |
| | Tj 150°C typically(IC1) detect on main control IC | | | | | |
| EMC | Protection type : Shut down, recovers automatically after temperature goes down | | | | | |
| | WORKING TEMP. | | | | | |
| | -40 ~ + 85°C (Refer to derating curve) | | | | | |
| | WORKING HUMIDITY | | | | | |
| | 20% ~ 90% RH non-condensing | | | | | |
| EMC | STORAGE TEMP., HUMIDITY | | | | | |
| | -55 ~ +125°C, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | | | | | |
| | ±0.03% / °C | | | | | |
| | VIBRATION | | | | | |
| 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes | | | | | | |
| EMC | OPERATING CASE TEMP. (max.) | | | | | |
| | 100°C | | | | | |
| | EMI CONDUCTION & RADIATION | | | | | |
| | Compliance to EN55015, FCC part 15 class B | | | | | |
| | EMS IMMUNITY | | | | | |
| Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A | | | | | | |
| OTHERS | MTBF | | | | | |
| | 2000Khrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | | | | | |
| | 31.8*20.3*12.2mm or 1.25**0.8**0.48" inch (L*W*H) | | | | | |
| | WEIGHT | | | | | |
| 18g | | | | | | |
| POTTING MATERIAL | | | | | | |
| Expoxy(UL94-V0) | | | | | | |

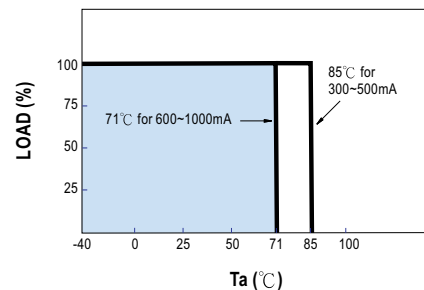
■ Mechanical Specification



■ Pin Configuration

| Pin No. | Output | Comment |
|---------|---------|---|
| 1,2 | -Vin | Don't connect to -Vout |
| 11,12 | -Vout | LED - Connection |
| 13,14 | +Vout | LED + Connection |
| 22 | PWM DIM | ON/OFF and PWM Dimming (Leave open if not used) |
| 23,24 | +Vin | DC Supply |

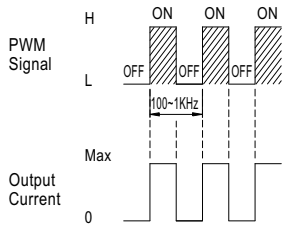
■ Derating Curve



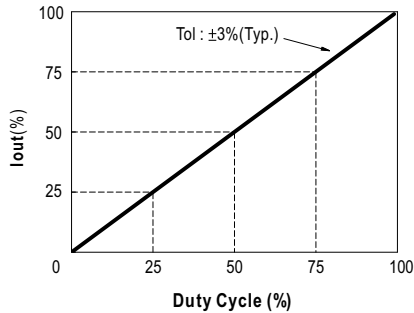
NOTE

- 1.All parameters are specified at normal input(48VDC), rated load, 25°C 70% RH ambient.
- 2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf capacitor.
- 3.Test condition: 48VDC input.

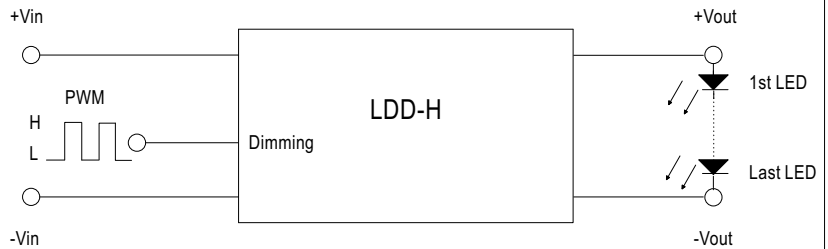
■ PWM Dimming Control



© During PWM dimming operation, the output current will change to PWM style.



■ Standard Application



H: >2.5~6VDC or open circuit
L: <0.8VDC or short

■ Efficiency VS Output Voltage(Number of LEDs)

Fig-1 12VDC input, 1~3 LEDs(V_f=3V)

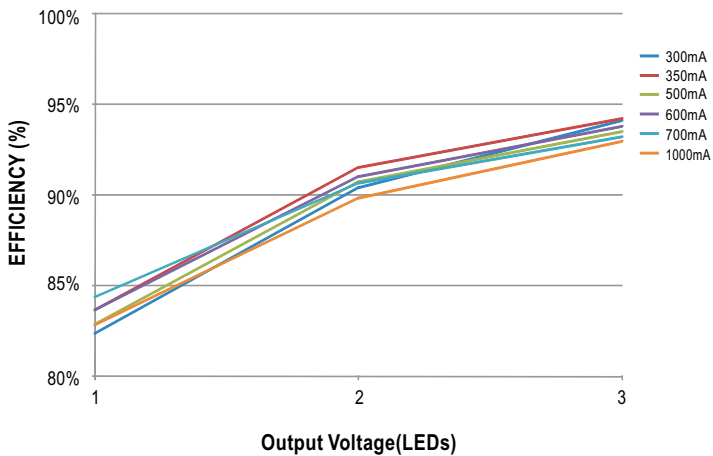


Fig-2 24VDC input, 1~7 LEDs(V_f=3V)

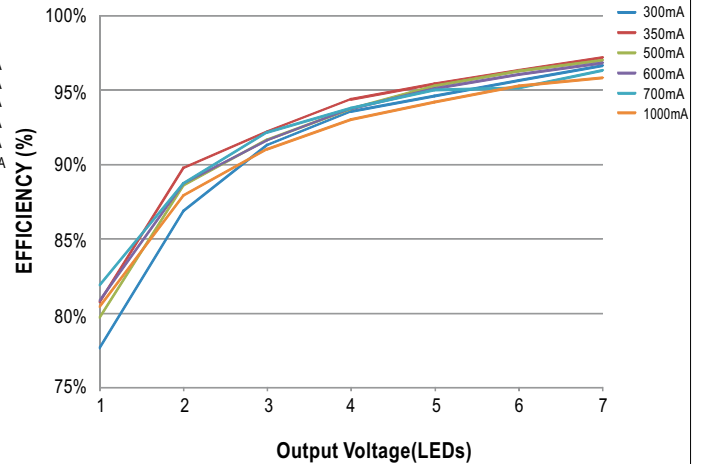


Fig-3 36VDC input, 1~10 LEDs(V_f=3V)

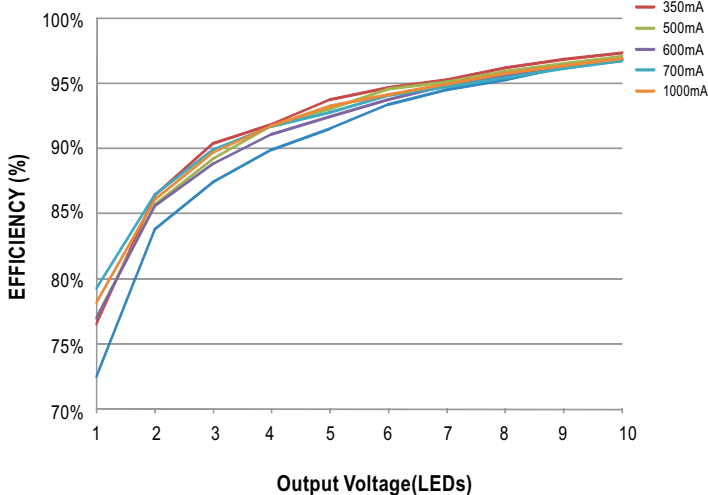


Fig-4 48VDC input, 1~14 LEDs(V_f=3V)

