

LED-CONVERTER UNIT

PS-LD0302-x-y(S)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile LED-Converter is developed for max. 3 LED-lines
Optimized for **Sharp: LQ104V1DG62**

APPLICABLE:

- 1~3 LED lines (Serial Mode)
- Pout max. 9W
- LED Voltage max. 25Vdc
- Lamp Current max. 80mAdc



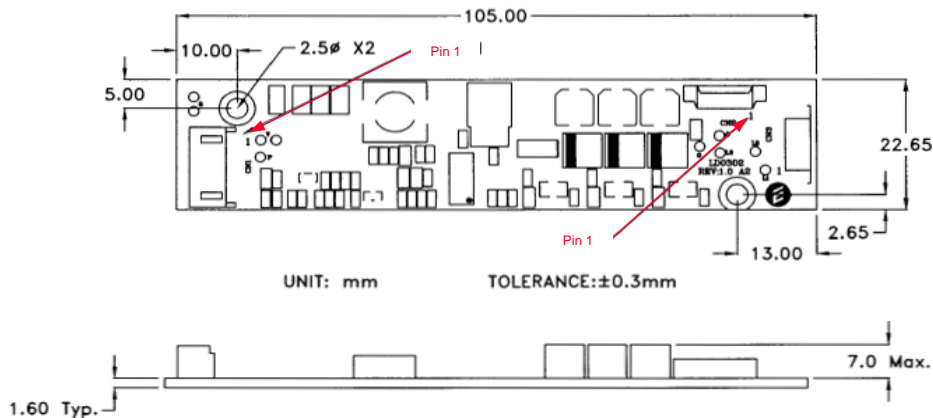
FEATURES :

- Internal Open LED Detection for every Line
- Ext. PWM Dimming
- 1000:1 dimming ratio with external PWM
- Remote ON / OFF (If you want)
- RoHS compliant (S)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -20°C ~ +70°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H 105 x 23 x 7.5 mm



Weight :13 (g) typ.

Components

| No. | Part Description | Qty. | Material | Note |
|-----|------------------|------|-------------------------|---------|
| 1 | PCB | 1 | UL94V-0 (FR-4 or CEM-3) | t=1.0mm |
| 2 | Connector CN1 | 1 | S5B-PH-SM3-1-TB | Molex |
| 3 | Connector CN3 | 1 | 53261-0690 / PBD | Molex |

Power Systems – The Power Solution

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Input side CN1:

| Pin No. | Symbols | Ratings |
|---------|----------|--------------------------------|
| CN 1-1 | Vin | 4.75 ~ 13.2 Vdc |
| CN 1-2 | GND | - |
| CN 1-3 | Ext. PWM | 0 ~ 0.5 = OFF / 2.5 ~ 5.0 = ON |
| CN 1-4 | N.C. | - |
| CN 1-5 | N.C. | - |

Output side CN2:

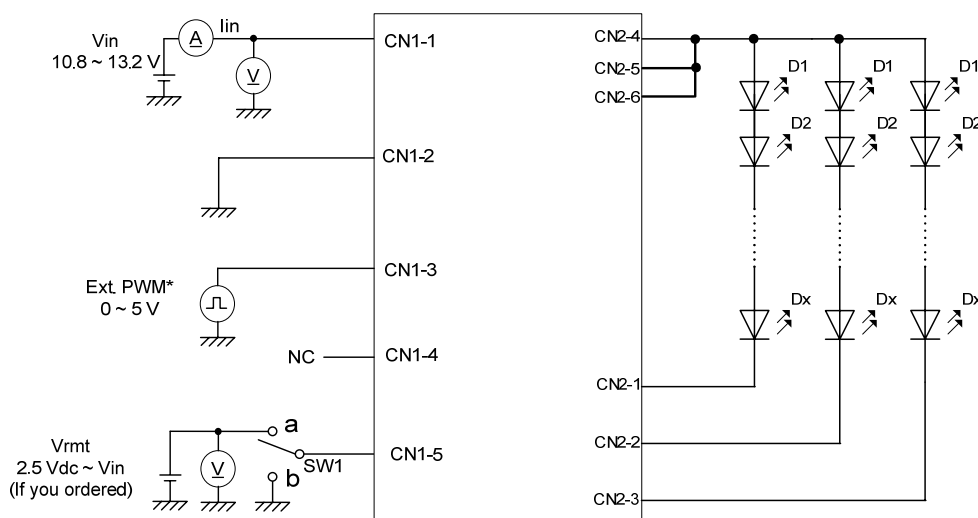
| Pin No. | Symbols | Ratings |
|---------|----------|-------------------|
| CN 3-1 | RTN1(-) | LED LINE 1 RETURN |
| CN 3-2 | RTN2(-) | LED LINE 2 RETURN |
| CN 3-3 | RTN3(-) | LED LINE 3 RETURN |
| CN 3-4 | Vhigh(+) | TBD |
| CN 3-5 | Vhigh(+) | TBD |
| CN 3-6 | Vhigh(+) | TBD |

ELECTRICAL CHARACTERISTICS :

| Parameters | Symbols | Conditions | | | Specification | | | Unit | Note |
|--------------------|---------|-------------|---------|---------|---------------|------|------|------|-----------------------|
| | | Vin (V) | Vbr (V) | Tu (°C) | Min. | Typ. | Max. | | |
| Output Current | Iout | 4.75 ~ 13.2 | 0 | -20~+70 | TBD | 80 | TBD | mAdc | Duty 100% max current |
| Input Current | Iin | 4.75 ~ 13.2 | 0 | -20~+70 | 0.4 | - | 2.0 | Adc | |
| Open Load Shutdown | Vbias | 4.75 ~ 13.2 | 0 | -20~+70 | - | 28 | - | Vdc | |
| PWM Frequency | f(PWM) | 4.75 ~ 13.2 | 0 | -20~+70 | 150 | - | 300 | Hz | |
| Output Power | Pout | 4.75 ~ 13.2 | 0 | -20~+70 | TBD | TBD | TBD | Watt | Tu: -20~+50degC |
| Output Power | Pout | 4.75 ~ 13.2 | 0 | -20~+70 | TBD | TBD | TBD | Watt | Tu: -20~+70degC |
| Output Power | Pout | 4.75 ~ 13.2 | 0 | -20~+50 | TBD | TBD | TBD | Watt | For one line |
| Output Power | Pout | 4.75 ~ 13.2 | 0 | -20~+70 | TBD | TBD | TBD | Watt | For one line |

- Note 1 : Pin terminal style converters have Molex connectors mounted.
- Note 2 : The external PWM frequency should be in a range of 100 ~ 500Hz. For other frequency please request. The optimum is 250 Hz.
- Note 3 : External PWM-signal is Low active.

TEST CIRCUIT :

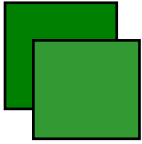


*) Only active when Vrmt is 0 Vdc or floating

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ORDER KEY :

PS-LD0302-x

With order of this converter please give the following key:

-x to be replaced by:

-1 output connector on CN2

-2 output connector on CN3

Examples:

PS-LD0302-1 (S)

Converter with output connector on CN2

PS-LD0302-2 (S)

Converter with output connector on CN3

CABLES :

For input: 500 mm, stripped and tinned ends, order key <input cable #2>

For output: 500 mm, stripped and tinned ends, order key <input cable #1>

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