

LED-CONVERTER UNIT

PS-LD0602-x-yyy(S) (3 W)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile LED-Converter is developed for max. 6 LED-lines

APPLICABLE:

1~6 LED lines (Serial Mode)
 Pout max. 0,9 Watt per line, total max. 3 Watt
 LED Voltage max. 35V
 Lamp Current max. 35 mAdc per line

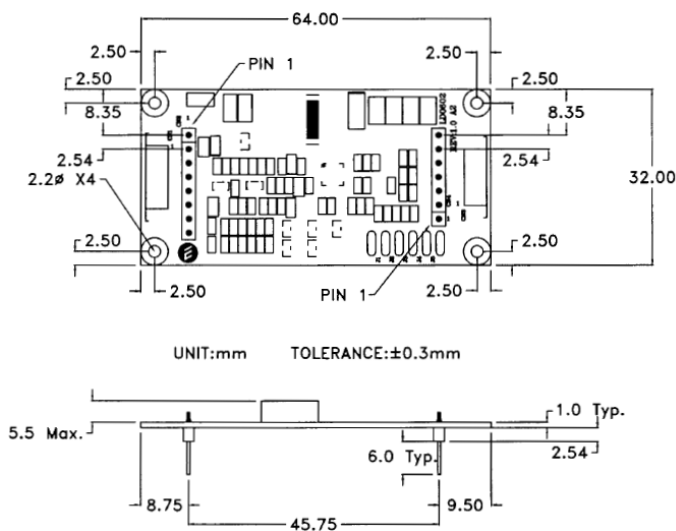
FEATURES :

Internal Open LED Detection for every Line
 Voltage or ext. PWM Dimming
 1000:1 dimming ratio with external PWM
 Remote ON / OFF
 Wide Input Voltage Range
 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 64 x 32 x 6.5 mm



Weight :5 (g) typ.

Pin terminal length may differ

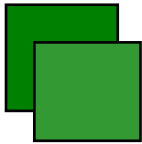
Components

No.	Part Description	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1.0mm
2	Connector CN1	1	53261-0890	Molex
3	Connector CN3	1	53261-0790	Molex

Power Systems – The Power Solution

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Input side CN1/CN2:

Pin No.	Symbols	Ratings
CN 1-1	Vin	4.75 ~ 13.2 Vdc
CN 1-2	Vin	4.75 ~ 13.2 Vdc
CN 1-3	Vrmt	0 ~ 0.8 = OFF / 2.5 ~ Vin = ON
CN 1-4	Ext. PWM	0 ~ 0.5 = LOW / 2.5 ~ 5 = HIGH
CN 1-5	Vbr	0.0 ~ 5.0 (5V=low brightness)
CN 1-6	GND	-
CN 1-7	GND	-
CN 1-8	GND	-

Output side CN3 / CN4

Pin No.	Symbols	Ratings
CN3 / 4-1	RTN1 (-)	LED LINE 6 RETURN
CN3 / 4-2	RTN2 (-)	LED LINE 5 RETURN
CN3 / 4-3	RTN3 (-)	LED LINE 4 RETURN
CN3 / 4-4	RTN4 (-)	LED LINE 3 RETURN
CN3 / 4-5	RTN5 (-)	LED LINE 2 RETURN
CN3 / 4-6	RTN6 (-)	LED LINE 1 RETURN
CN3 / 4-7	Vhigh (+)	max 30Vdc (max.30mAdc)

Output Current Select Control

Jumper	JP 1	JP 2	JP 3	JP 4	JP 5	Output Current
Break	✕					+1 mA
Break		✕				+2 mA
Break			✕			+4 mA
Break				✕		+8 mA
Break					✕	+5 mA

Example:

10mA (Output Current Min.) + 1mA (JP1) = 11mA

10mA (Output Current Min.) + 8mA (JP4) = 18mA

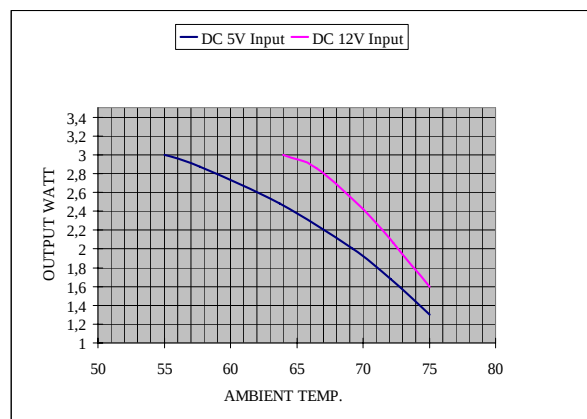
JP1 ~ JP5 OPEN = 30mA

For more information, please visit our web-site.

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	8	10	12	mAdc	Duty 100% max current
Output Current	Imin	4.75 ~ 13.2	5	-20~+70	-	10	-	%	duty cycle
Input Current	Iin	4.75 ~ 13.2	0	-20~+70	0.06	-	0.3	Adc	
Open Load Shutdown	Vbias	4.75 ~ 13.2	0	-20~+70	-	35	-	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	3	TBD	Watt	Tu: -20~+50degC
Output Power	Pout	4.75 ~ 13.2	0	-20~+70	TBD	1.9	TBD	Watt	Tu: -20~+70degC
Output Power	Pout	4.75 ~ 13.2	0	-20~+50	TBD	0.9	TBD	Watt	For one line
Output Power	Pout	4.75 ~ 13.2	0	-20~+70	TBD	0.6	TBD	Watt	For one line

DERATING:



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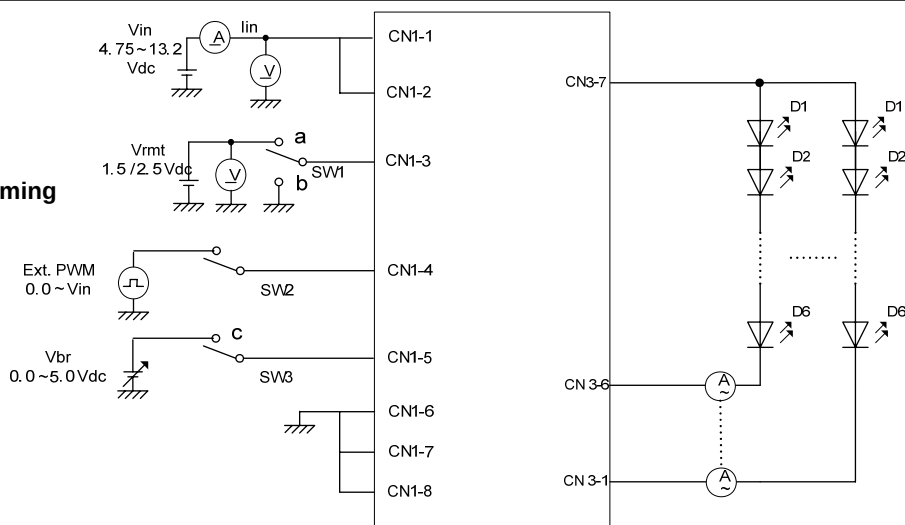
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TEST CIRCUIT :

Connect Vbr to Ground while using ext. PWM dimming.

Do not connect ext. PWM dimming while using Vbr.



- Note 1 : Do not use analog dimming function and external PWM for dimming at the same time.
 Note 2 : Pin terminal style converters have Molex connectors mounted.
 Note 3 : Above output current is the default value. Correct output current is to be selected by user and under his sole responsibility. Exceeding currents will damage the LED backlight.
 Note 4 : External PWM-signal is LOW active.
 Note 5 : Do not use output 1 in case you connect only 5 (or less) outputs. Examples: Use 5 outputs only 1 then connect Pin 2+3+4+5+6.
 Note 6 : In case customer do not connect all output, please ask factory.

ORDER KEY :

PS-LD0602-x-yyy

With order of this converter please give the following key:

- x to be replaced by:
- 1 for connectors
- 2 for Pin-Terminal

in case of quantity orders (300+ pcs), a pre-configuration can be ordered:

-yyy to be replaced by:

three digit value for required output current per LED line (from 010 to 030 including)

- Attention:** * if no value is mentioned, 10 mA output current per LED line will be set as default
 * a selection of incorrect LED current may decrease lifetime or destroy the backlight
 * orders for pre-configured converters can't be cancelled

Examples:

PS-LD0602-1-015 (S)
 15 mA output current
 PCB with connectors

PS-LD0602-2-025 (S)
 25 mA output current
 PCB with Pin-Terminal

CABLES :

- for input:** 500 mm, stripped and tinned ends, order key <input cable #13>
- for output:** 500 mm, stripped and tinned ends, order key <input cable #4>

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