

LED-CONVERTER UNIT

PS-LD0602-021-B(S) (3 W)

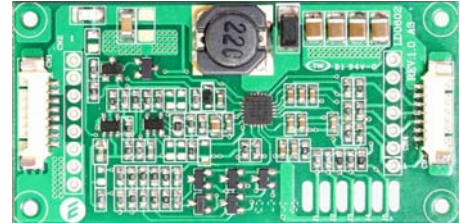
(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile LED-Converter is developed for Sharp: LQ057Q3DG02

APPLICABLE:

- 1~6 LED lines (Serial Mode)
- Pout max. 0,9 Watt per line, total max. 3 Watt
- LED Voltage max. 30V
- Lamp Current max. 20 mAdc per line



Connector style

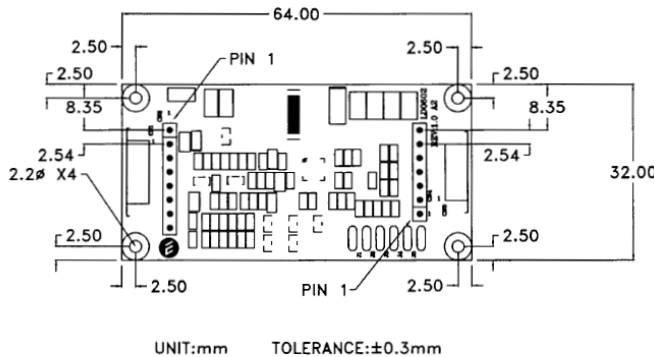
FEATURES :

- 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)

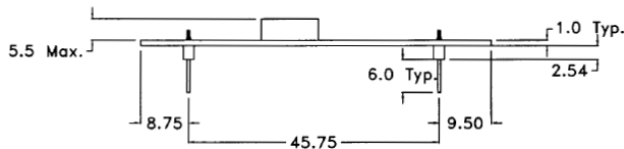
TEMPERATURE & HUMIDITY :

- 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.



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	-

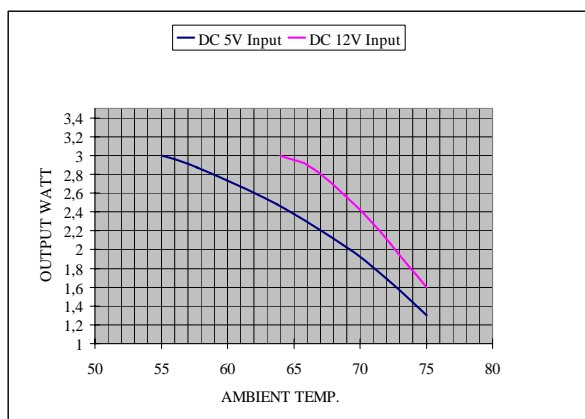
Output side CN3 / CN4:

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

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	18	20	22	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	-	30	-	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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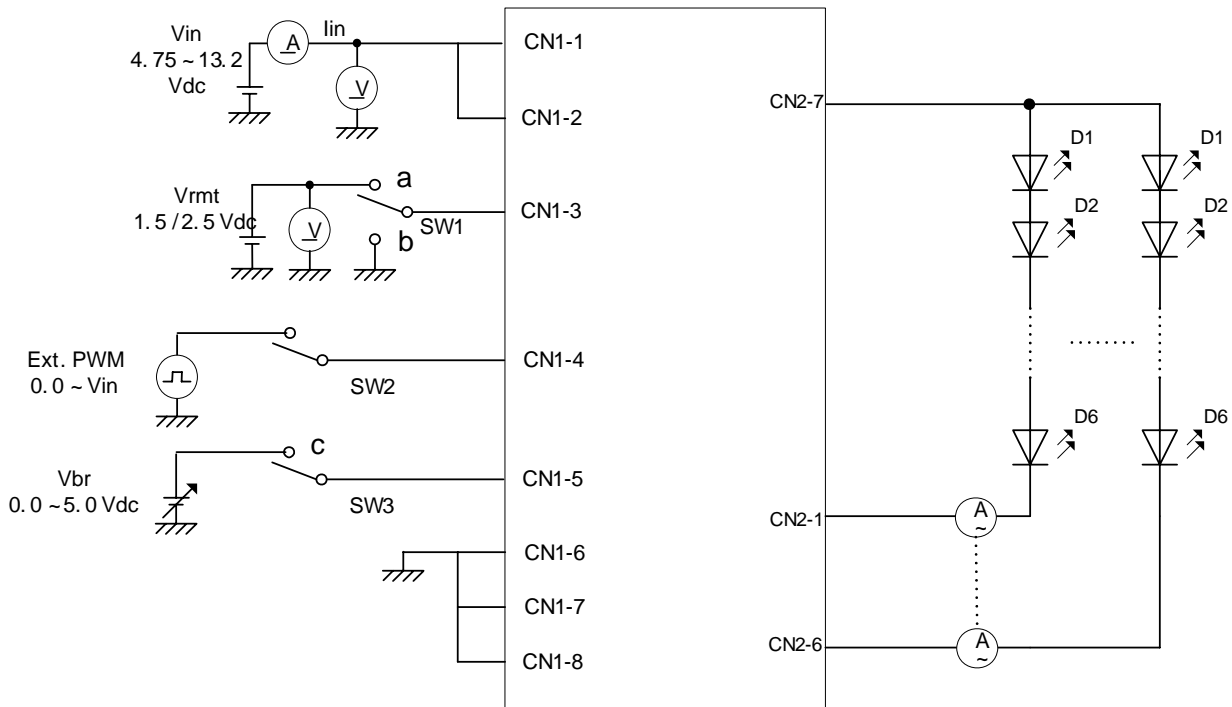
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TEST CIRCUIT :

Connect Vbr to Ground while using ext. PWM dimming.



- Note 1 : Do not use analog dimming function and external PWM for dimming at the same time.
 Note 2 : External PWM-signal is LOW active.
 Note 3 : Do not use output 1 in case you have less outputs lanes connected. Examples. Single lane display please connect the LED lane on output 2 or 3... **but not output 1.**

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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