

LED CONVERTER UNIT

CE-1077

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile LED-Converter is developed for 3 LED-lines



APPLICABLE:

- 3 LED lines (Serial Mode)
- Pout max. 2,8 Watt per line, total max. 8,4 Watt
- LED Voltage max. 28V
- Lamp Current max. 100 mAdc per line

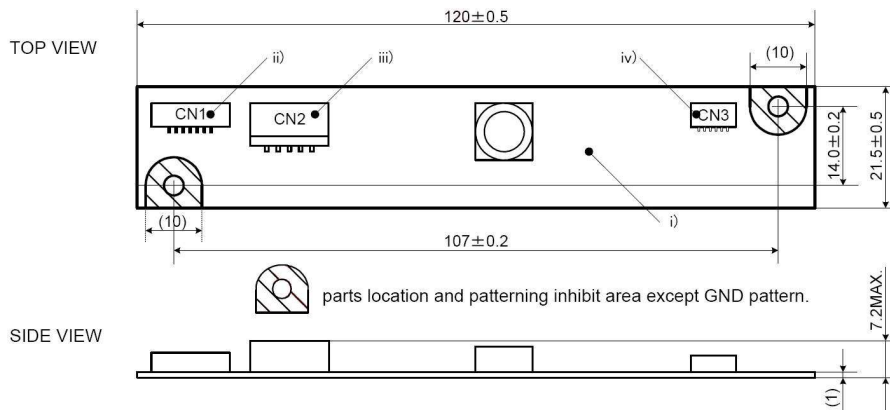
FEATURES :

- PWM Dimming
- Remote ON / OFF
- Alarm output function
- Shutdown function
- RoHS compliant (R)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -20°C ~ +80°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H 120 x 21.5 x 7.2 mm



Weight :T.B.D.

Components

No.	Part Description	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1.0mm
2	Connector CN1	1	51021-0700	Molex
3	Connector CN2	1	PHR-5	JST
4	Connector CN3	1	SHR-60V-S-B	JST

Power Systems – The Power Solution

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Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1	Vin	10.8 ~ 13.2 Vdc
CN 1-2	Vin	10.8 ~ 13.2 Vdc
CN 1-3	GND	-
CN 1-4	GND	-
CN 1-5	Vrmt	0 ~ 0.4 = OFF / 2.5 ~ Vin = ON
CN 1-6	Vst	0V (normal) / T.B.D. (fail)
CN 1-7	Vbr/Rbr	0 ~ 2.5Vdc / 0 ~ 50kΩ (max brightness 0V / 0Ω)

Output side CN2:

Pin No.	Symbols	Ratings
CN 2-1	Vin	10.8 ~ 13.2 Vdc
CN 2-2	GND	-
CN 2-3	Ext. PWM	0 - 5 V (0V active)
CN 2-4	N.C.	-
CN 2-5	Vrmt	0~0.4V=OFF / 2.5~5V=ON

Output side CN3:

Pin No.	Symbols	Ratings
CN 3-1	+CH3	If = 100mA rms (max)/ch
CN 3-2	+CH2	
CN 3-3	+CH1	
CN 3-4	-CH1	V = 28V (max)/ch
CN 3-5	-CH2	
CN 3-6	-CH3	

Caution:

Never connect CN1 and CN2 at the same time.

ELECTRICAL CHARACTERISTICS :

In case of **CN1** connection

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	10.8 ~ 13.2	0	T.B.D.	95	100	105	mA rms	
Dimming 1	I _{pwm}	10.8 ~ 13.2	2.5	T.B.D.	3.5	5.0	6.0	mA rms	
Input Current 1	I _{in1}	10.8 ~ 13.2	0	T.B.D.	-	0.6	0.7	A	
Input Current 2	I _{in2}	10.8 ~ 13.2	0	T.B.D.	-	T.B.D.	T.B.D.	mA	
Oscillation Frequency	f	10.8 ~ 13.2	0	T.B.D.	700	750	800	KHz	
Burst Frequency	f _{bst}	10.8 ~ 13.2	2.5	T.B.D.	300	330	360	Hz	
Warning Output	Vst1	10.8 ~ 13.2	0	T.B.D.	-	0	0.5	Vdc	
	Vst2	10.8 ~ 13.2	0	T.B.D.	T.B.D.	T.B.D.	T.B.D.	Vdc	

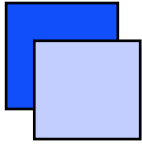
In case of **CN2** connection

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	ext.PWM	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	10.8 ~ 13.2	0	T.B.D.	95	100	105	mA rms	
Dimming 1	I _{pwm}	10.8 ~ 13.2	99%	T.B.D.	0.5	1.0	1.5	mA rms	PWM: 5V / 200 Hz
Input Current 1	I _{in1}	10.8 ~ 13.2	0	T.B.D.	-	0.6	0.7	A	
Input Current 2	I _{in2}	10.8 ~ 13.2	0	T.B.D.	-	T.B.D.	T.B.D.	mA	

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TEST CIRCUIT :

Connect Vbr to Ground while
using ext. PWM dimming.

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