

DC-AC INVERTER UNIT

CXA-P1212C-WJL (8W DUAL OUTPUTS WITH DIMMING FUNCTION)

DESCRIPTION :

This low profile DC to AC Inverter is developed for dual lamps, low power LCD back-light. Application includes industrial PC and LCD monitor.



APPLICABLE LCD:

- 8 to 12 inches double lamp type
- Lamp Voltage 600Vrms
- Lamp Current 6mArms
- Lamp Start Up Voltage 1700Vrms (Vin : 12V)

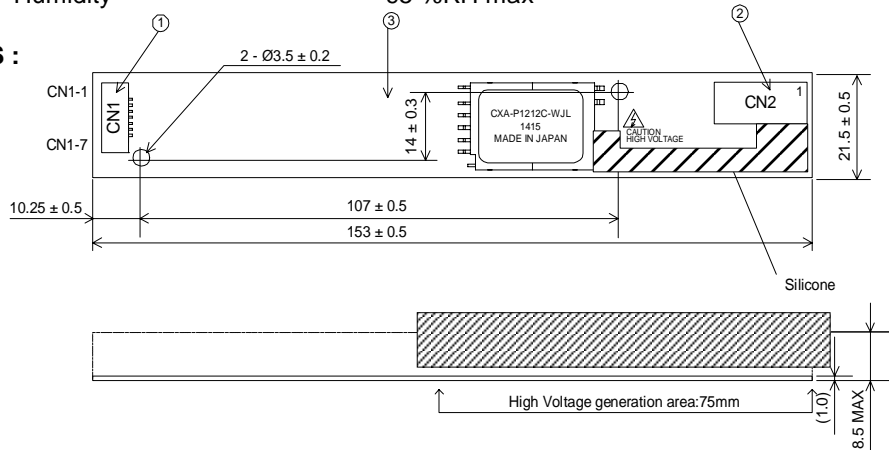
FEATURES :

- Wide operating temperature range
- Alarm signal function
- PWM dimming type.
- Current Feedback Circuit
- Silicon Coating in High Voltage area

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -10° C ~ +70° C
- Storage Temperature Range -30° C ~ +85° C
- Humidity 95 %RH max

DIMENSIONS :



Unit : mm
Weight : 25 (g) typ.

No.	Part Description	Qty.	Note
1	PWB	1	UL94V-0 t=1.0mm
2	Connector CN1	1	53261-0790 (Molex)
3	Connector CN2	1	SM03(7-D1)B-BHS-1 or SM04(4.0)B-BHS (JST)

CN1 : 53261-0790 (Molex)

Pin	Symbol	Note
CN1-1	Vin	10.8 ~ 13.2V
CN1-2		
CN1-3	GND	0 V
CN1-4		
CN1-5	Vrmt	0 ~ 0.4V : OFF 2.5V ~ Vin : ON
CN1-6	Vst*1	0V / 5V
CN1-7	Vbr / Rbr	0 ~ 2.5V / 0 ~ 50k Ω

CN2 : SM03(7-D1)B-BHS-1 or SM04(4.0)B-BHS-1 (JST)

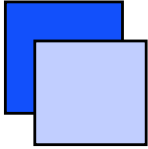
Pin	Symbol	Note
CN2-1	Vhigh1	600Vrms (6mArms)
CN2-2	Vhigh2	600Vrms (6mArms)
CN2-3	N.C.	-
CN2-4	Vlow	(2V)

*1. This is an output pin and it is active high (+5V) if any Lamp opens / fails

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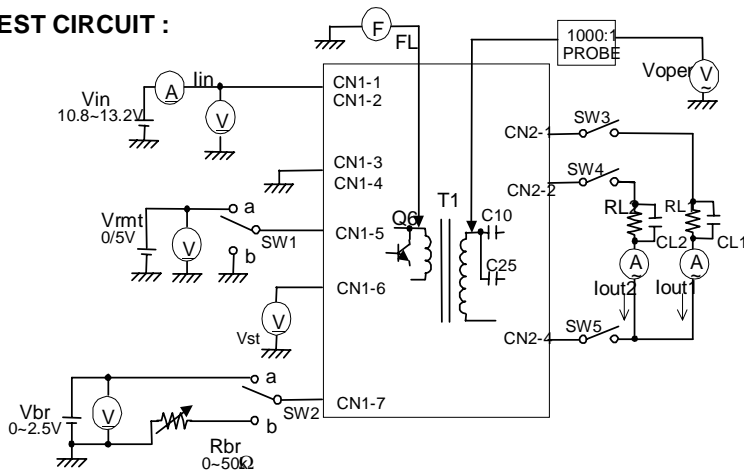
ELECTRICAL CHARACTERISTICS :

Parameters	Symbol	Conditions				Specifications			Unit	Note	
		Vin (V)	Vbr (V)	Vbr / VR	Ta (°C)	RL1 (kΩ) // CL1(pF) RL2 (kΩ) // CL2(pF)	min.	typ.			max.
Output Current	Iout1 / Iout2	12 ± 1.2	5 ± 0.25	0V / 0Ω	-10 ~ +70	85 ~ 95 // 5 85 ~ 95 // 5	5.3	6.0	6.7	mArms	Max Brightness.
		12 ± 0.6	5 ± 0.25	0V / 0Ω	23 ± 5	90 // 5 90 // 5	5.5	6.0	6.5	mArms	
		12 ± 0.6	5 ± 0.25	2.5V / 50kΩ	23 ± 5	90 // 5 90 // 5	1.2	2.0	2.8	mArms	Min Brightness.
Input Current 1	Iin1	12 ± 0.6	5 ± 0.25	0V / 0Ω	-10 ~ +70	90 // 5 90 // 5	-	0.8	1.0	Adc	
Input Current 2	Iin2	12 ± 0.6	0 ± 0.25	0V / 0Ω	-10 ~ +70	85 ~ 95 // 5 85 ~ 95 // 5	-	-	1.0	mAdc	
Frequency	FL	12 ± 0.6	5 ± 0.25	0V / 0Ω	-10 ~ +70	85 ~ 95 // 5 85 ~ 95 // 5	35	40	45	kHz	
Open Voltage	Vopen	10.8	5 ± 0.25	0V / 0Ω	-10 ~ +70	∞	1500	1700	-	Vrms	
Alarm Signal (Note 4)	Vst	12 ± 1.2	5 ± 0.25	0V / 0Ω	-10 ~ +70	85 ~ 95 // 5 ∞	4.5	5.0	5.5	Vdc	RL2 // CL2 open
		12 ± 1.2	5 ± 0.25	0V / 0Ω	-10 ~ +70	∞ 85 ~ 95 // 5	4.5	5.0	5.5	Vdc	RL1 // CL1 open
		12 ± 1.2	5 ± 0.25	0V / 0Ω	-10 ~ +70	85 ~ 95 // 5 85 ~ 95 // 5	-	0	0.5	Vdc	Normal

Note 1 : Please keep minimum of 2mm clearance (all directions) between inverter high voltage area as marked on mechanical drawing and any conductors.

Note 2 : Open circuit on all lamps for more than 3 seconds, will shut the inverter down.

TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

SW2	Operation of unit
a	Voltage dimming Vbr=0~2.5V
b	Variable resistance dimming VR=0~50kΩ

Note 3: In test circuit; 5pF capacitor across the load resistor is add to simulate LCD back-light stray capacitor.

Note 4 : In test circuit; if any of switches SW3, Sw4 or SW5 opens , then the alarm signal will be activated (+5V).

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