

# DC-AC INVERTER UNIT

## CXA-0271 (5W 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 460Vrms  
 Lamp Current 6mArms  
 Lamp Start Up Voltage 1500Vrms (Vin : 12V)



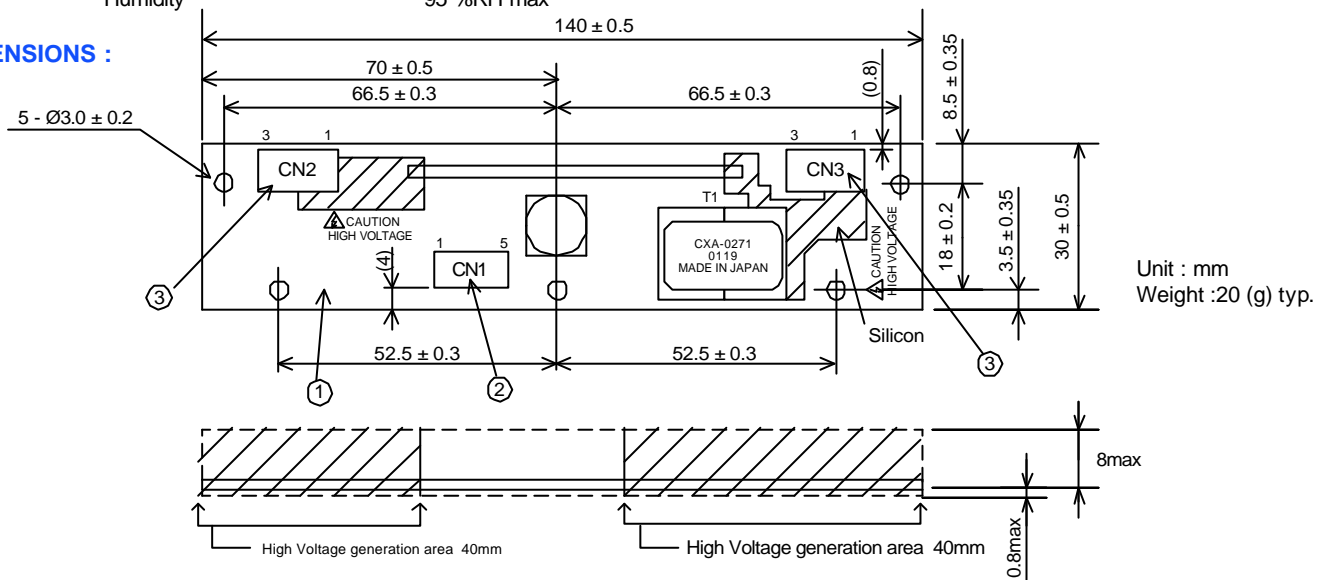
### FEATURES :

- Alarm signal function
- PWM dimming type.
- Silicon Coating in High Voltage area

### TEMPERATURE & HUMIDITY :

Operating Temperature Range 0°C ~ +60 °C  
 Storage Temperature Range -30°C ~ +85°C  
 Humidity 95 %RH max

### DIMENSIONS :



No.	Part Description	Qty.	Note
1	PWB	1	UL94V-0 t=1.0mm
2	Connector CN1	1	S5B-PH-SM3-TB (JST)
3	Connector CN2,CN3	2	SM02(8.0)B-BHS-1 (JST)

CN1 : S5B-PH-SM3-TB (JST)

Pin	Symbol	Note
CN1-1	Vin	10.8 ~ 13.2V
CN1-2	GND	0 V
CN1-3	Vbr	0 ~ 2.5V
CN1-4	Vst <sup>*1</sup>	0V / 5V
CN1-5	Vrmt	0V ~ 0.4V : OFF 2V ~ Vin : ON

CN2 : SM02(8.0)B-BHS-1 (JST)

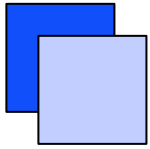
Pin	Symbol	Note
CN2-1	Vhigh1	460Vrms (6mArms)
CN2-2	N.C.	-
CN2-3	Vlow1	(2V)

CN3 : SM02(8.0)B-BHS-1 (JST)

Pin	Symbol	Note
CN3-1	Vhigh1	460Vrms (6mArms)
CN3-2	N.C.	-
CN3-3	Vlow1	(2V)

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

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 Tel : +1-847-390-4439 (USA)  
 Tel : +44-118-921-6206 (EU)



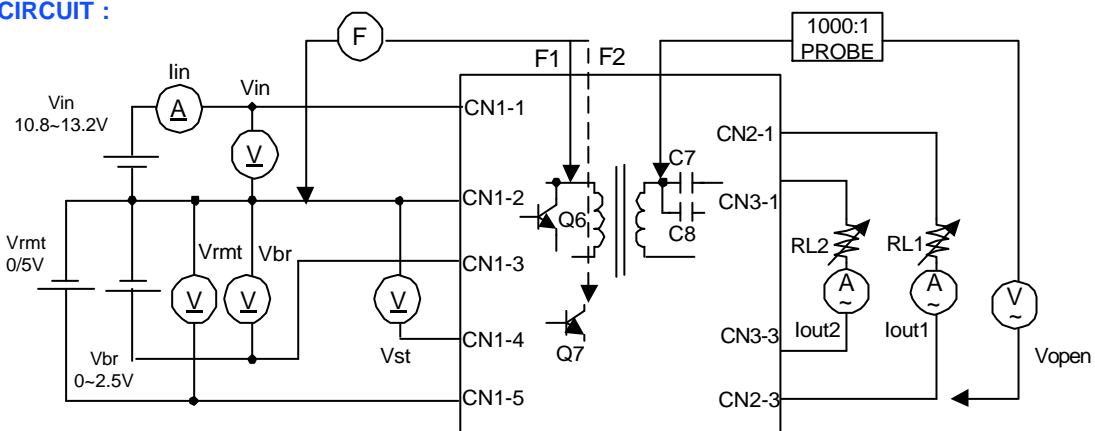
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**ELECTRICAL CHARACTERISTICS :**

Parameters	Symbol	Conditions					Specifications			Unit	Note
		Vin (V)	Vrmt (V)	Vbr (V)	Ta (°C)	RL1 (kΩ) RL2 (kΩ)	min.	typ.	max.		
Output Current	Iout1 / Iout2	12 ± 1.2	5 ± 0.25	0	0 ~ +60	74	5.0	6.0	7.0	mArms	Max Brightness.
		12 ± 0.1	5 ± 0.25	0	23 ± 5	74	5.7	6.0	6.7	mArms	
		12 ± 0.1	5 ± 0.25	2.5	23 ± 5	74	1.2	2.0	2.8	mArms	Min Brightness.
		12 ± 0.1	5 ± 0.25	2.5	23 ± 5	74	1.2	2.0	2.8	mArms	
Input Current 1	Iin1	12 ± 1.2	5 ± 0.25	0 ~ 1.5	23 ± 5	74	-	0.55	0.7	A <sub>dc</sub>	
Input Current 2	Iin2	12 ± 1.2	0 ± 0.25	0 ~ 1.5	23 ± 5	74	-	-	1	mA <sub>dc</sub>	
Frequency	F1	12 ± 1.2	5 ± 0.25	0	23 ± 5	74	38	43	48	kHz	
Frequency (Duty)	F2	12 ± 1.2	5 ± 0.25	1.0	23 ± 5	74	254	305	356	Hz	
Open Voltage	Vopen	12 ± 1.2	5 ± 0.25	0	23 ± 5	∞	1250	1500	-	V <sub>rms</sub>	
Alarm Signal	Vst	12 ± 0.1	5 ± 0.25	0 ~ 2.5	23 ± 5	74	4.5	5.0	5.5	V <sub>dc</sub>	RL2 open
		12 ± 0.1	5 ± 0.25	0 ~ 2.5	23 ± 5	∞	4.5	5.0	5.5	V <sub>dc</sub>	RL1 open
		12 ± 0.1	5 ± 0.25	0 ~ 2.5	23 ± 5	∞	4.5	5.0	5.5	V <sub>dc</sub>	RL1 & RL2 open
		12 ± 0.1	5 ± 0.25	0 ~ 2.5	23 ± 5	∞	4.5	5.0	5.5	V <sub>dc</sub>	RL1 & RL2 open
		12 ± 0.1	5 ± 0.25	0 ~ 2.5	23 ± 5	74	-	0	0.5	V <sub>dc</sub>	Normal

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

**TEST CIRCUIT :**



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All specification are subject to change without notice.