

DC-AC INVERTER UNIT

CXA-0323 SERIES (3.0W SINGLE OUTPUT)

(PRELIMINARY, Custom Design)

DESCRIPTION :

This DC-to-AC inverter is developed for Sharp Display LQ038Q5DR01. The output current of the inverter is reduced to prolong CCFL life time. The inverter is equipped with a dimming input which permits CCFL brightness control by applying an external PWM signal.

- APPLICATION:** Single lamp type
 Lamp Voltage 530V
 Lamp Current typ. 4 mA
- FEATURES :** High Efficiency (typ. 85%)
 Fuse protection
 Ext. PWM Dimming with internal Pull-Up 1,5 kohm
 Low noise with voltage resonant circuit

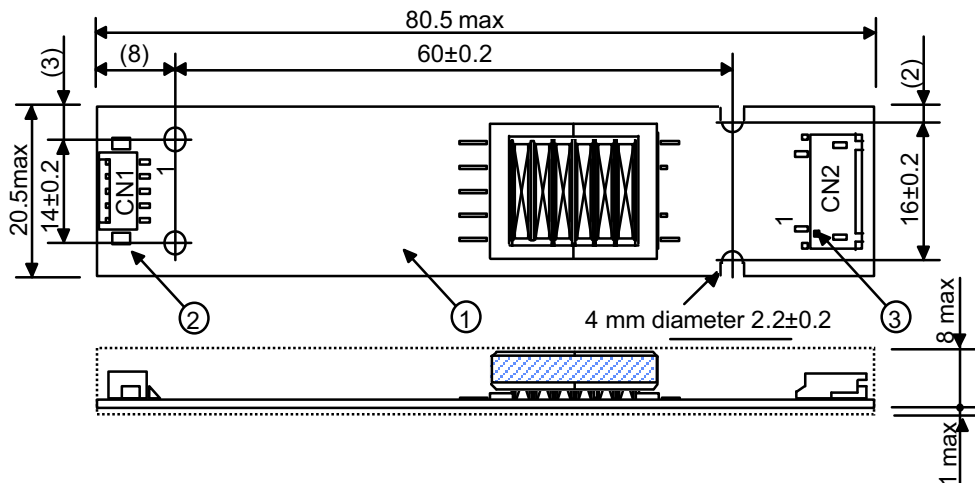


TEMPERATURE

- & HUMDITY :** Operating Temperature Range 0 °C ~ +60°C
 Storage Temperature Range -40 °C ~ +85°C
 Humidity 95 %RH max

- MAX. RATING:** Input Voltage: min. 9,6 Vdc; max. 14,4 VDC (the output current is different)
 Output Power: max. 3,5 Watt

DIMENSIONS :



No.	Part Description	Qty.	Note	Item
1	PWB	1	UL94V-0 t=1mm	
2	Connector CN1	1	53261-0590 (Molex)	
3	Connector CN2	1	SM02(8.0)B-BHS (JST)	

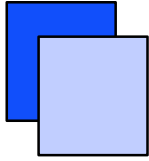
CN1 : 53261-0590 (Molex)		
Pin	Symbol	Note
CN1-1	Vin	+ 12 Vdc
CN1-2	GND	0 Vdc
CN1-3	Ext. PWM	Typ. 120 Hz
CN1-4	N.C.	
CN1-5	N.C.	

CN2 : SM02(8.0)B-BHS (JST)		
Pin	Symbol	Note
CN2-1	Iout	Typ. 4 mArms
CN2-2	N.C.	
CN2-3	Iout-ret	(2V)

Power Systems – The Power Solution

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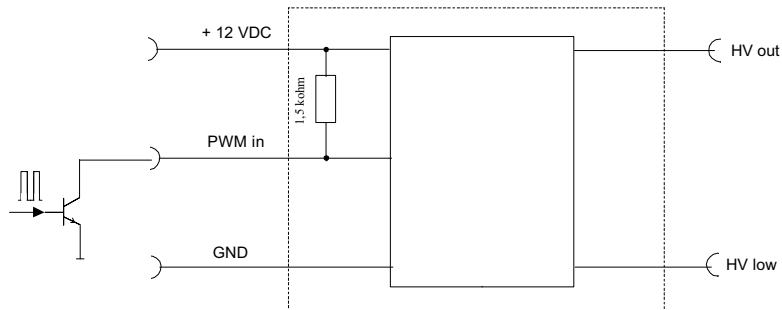


ELECTRICAL CHARACTERISTICS :

Parameter	Symbol	Conditions			Specification			Unit	Note
		Vin (V)	Ta (°C)	RL (kohm)	Min.	Typ.	Max.		
Output Current	Iout	12 +/-1%	23 +/-5	120	3,5	4,0	4,5	mArms	
Input Current	Iin	12 +/-5%	0 ~ +60	110 ~ 130	-	0,3	0,5	Adc	
Frequency	FL	12 +/-5%	0 ~ +60	110 ~ 130	33	40	47	kHz	
Open Voltage	Vopen	12 +/-5%	0 ~ +60	110 ~ 130	1.300	1.500	-	Vrms	
PWM Frequency	F	12 +/-5%	0 ~ +60	110 ~ 130	100	120	200	Hz	
PWM Duty Circle	%	12 +/-5%	0 ~ +60	110 ~ 130	0	-	100	%	1
PWM Off Voltage	Voff	12 +/-5%	0 ~ +60	110 ~ 130	0,5	-	-	Vdc	2

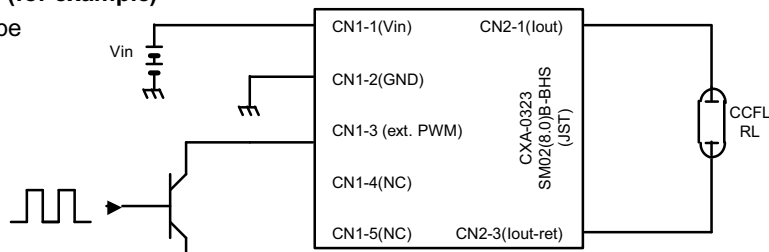
Note 1: PWM Duty Cycle 0% without device degradation

Note 2: External switch to ground. The Inverter has an internal Pull-Up-Resistor inside.



APPLICATION (for example)

Ext. PWM Type



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