

DC-AC INVERTER UNIT

PS-DA0253-023 (9 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This DC to AC Inverter was developed for Sharp LQ104S1LG21

APPLICABLE LCD:

- Lamp Voltage 470 Vrms
- Lamp Current 2 x 6.0 mArms
- Lamp Start Up Voltage 1.600 Vrms (Vin : 12 Vdc)



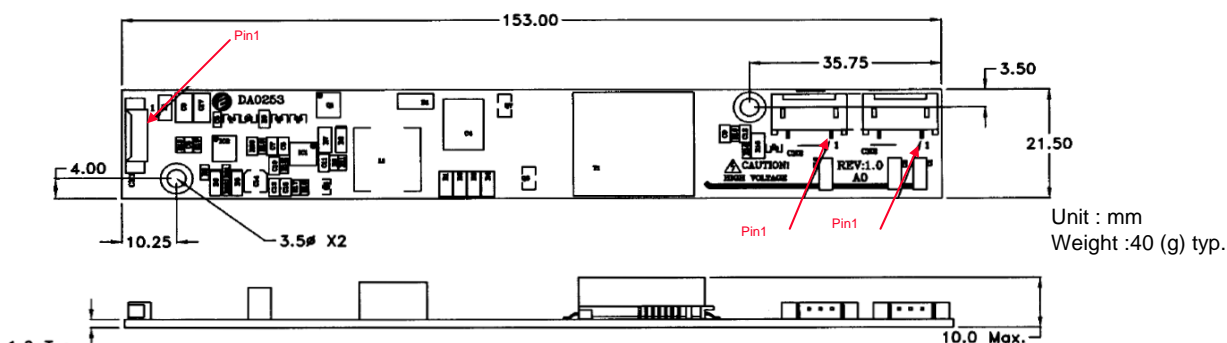
FEATURES :

- Current Feedback Circuit
- High Efficiency
- Low noise with voltage resonant circuit
- Regulated output current

TEMPERATURE & HUMDITY :

- Operating Temperature Range -10°C ~ +65°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS :



Note: Please use plastic screw in case of a non-insulating mounting base!

Components

No.	Part Discription	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1mm
2	Connector CN1	1	53261-0790	Molex or equal
3	Connector CN2 ~ CN3	2	SM02(8.0)B-BHS-1-TB	JST or equal

Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1+2	Vin	10.8 ~ 13.2 Vdc
CN 1-3+4	GND	
CN 1-5	Vrmt	0 ~ 0.4 = OFF / 2.5 ~ Vin = ON
CN 1-6	Vbr	0 ~ 1.8 Vdc
CN 1-7	Vbr	0~10kOhm

Output side CN2 ~ CN3

Pin No.	Symbols	Ratings
CN 2-1	Vhigh	470 Vrms (6.0 mArms)
CN 2-2	N.C.	-
CN 2-3	Vlow	(GND)

Power Systems – The Power Solution

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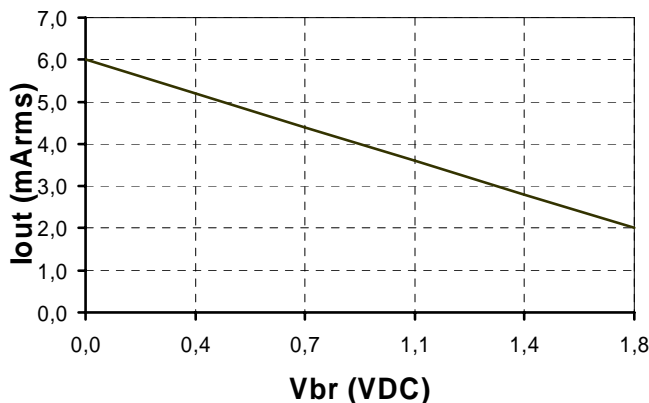
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ELECTRICAL CHARACTERISTICS :

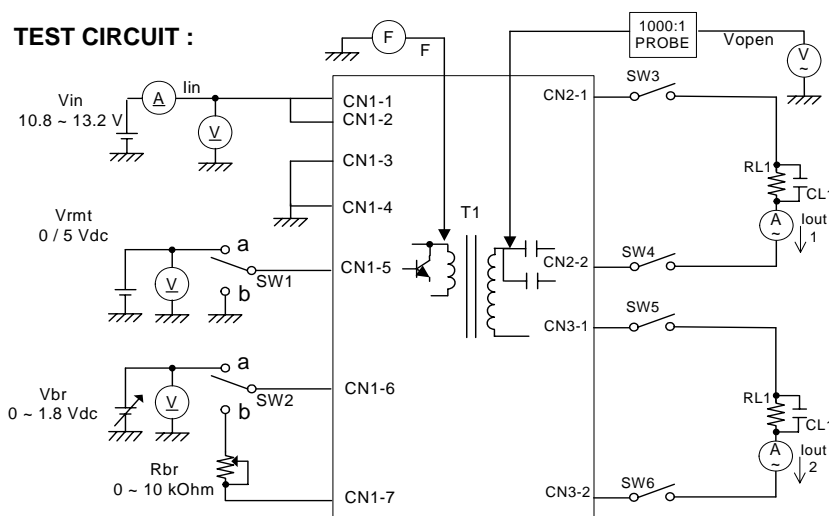
Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vrmt (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	5±0.25	-10 ~ +65	5.5	6.0	6.5	m Arms	Duty 100%
Output Current	Iout	12±0.6	5±0.25	-10 ~ +65	1.7	2.0	2.4	m Arms	Vbr = 1.8 Vdc
Input Current	Iin	12±1.2	5±0.25	-10 ~ +65	-	0.75	1.0	Adc	
Frequency	F	12±1.2	5±0.25	-10 ~ +65	32.5	40	47.5	kHz	
Open Circuit Voltage	Vopen	11.4	5±0.25	-10 ~ +65	1.500	1.700	1.900	Vrms	
No Load Shutdown	Tsd	12±1.2	5±0.25	-10 ~ +65	1.0	-	-	sec	without load

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

DIMMING CHARACTERISTICS (Reference)



TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

SW2	Operation of unit
a	Vbr 0 ~ 1.8 Vdc dimming
b	Rbr 0 ~ 10 kOhm dimming

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