

DC-AC INVERTER UNIT

PS-DA0253-146-B (9 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This DC to AC Inverter was developed for many other low LCD Backlight power supply as low profile applications.

Optimized for Sharp: LQ08453DG01

APPLICABLE LCD:

- 10 to 15 inches dual lamp type
- Lamp Voltage 380 Vrms
- Lamp Current 2 x 6 mArms
- Lamp Start Up Voltage 1.700 Vrms (Vin : 12 Vdc)



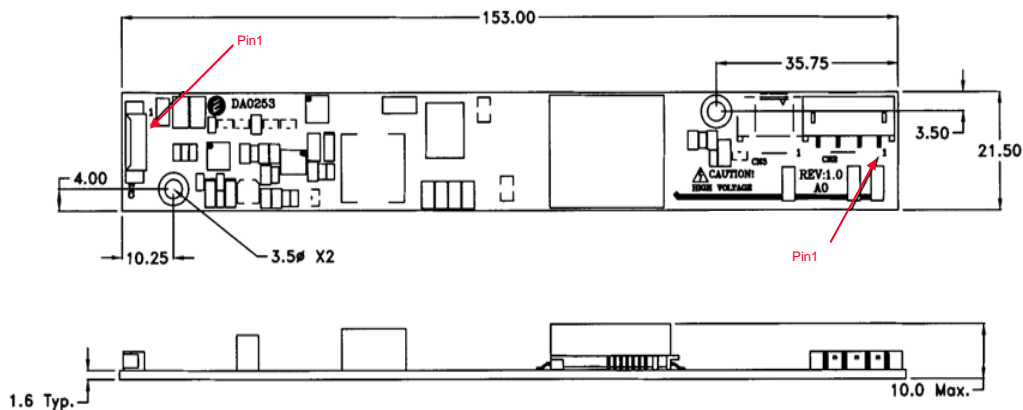
FEATURES :

- Current Feedback Circuit
- High Efficiency
- Low noise with voltage resonant circuit
- Regulated output current
- RoHS compliant (S)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -30°C ~ +85°C (for Sharp LQ08453DG01 only, for other display please request factory)
- Storage Temperature Range -35°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H 153 x 22 x 10 mm



Unit : mm
Weight :40 (g) typ.

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

Components

No.	Part Description	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	1	SM04(4.0)B-BHS-1-TB	JST or equal

Power Systems – The Power Solution

Web: www.Power-Systems.de
Email: Info@Power-Systems.de

Address: Hauptstr. 48 ; 74360 Ilfeld-Auenstein / Germany
Tel. : + 49 / 70 62 / 67 59 - 6
Fax: + 49 / 70 62 / 67 59 - 800

DC-AC INVERTER UNIT

PS-DA0253-146-B (9 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

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

Pin No.	Symbols	Ratings
CN 2-1	Vhigh	380 Vrms (6 mArms)
CN 2-2	Vhigh	380 Vrms (6 mArms)
CN 2-3	N.C.	-
CN 2-4	Vlow	(GND)

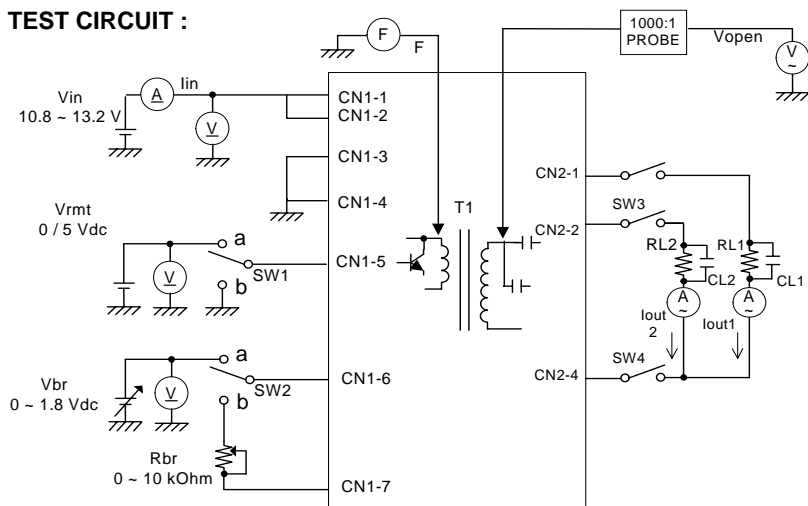
ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vrmt (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	5±0.25	-30 ~ +85	5.4	6.0	6.6	mArms	Duty 100%
Output Current	Iout	12±0.6	5±0.25	-30 ~ +85	2.7	3.0	3.4	mArms	Vbr = 1.8Vdc
Input Current	Iin	12±1.2	5±0.25	-30 ~ +85	-	0.75	1.0	Adc	
Frequency	F	12±1.2	5±0.25	-30 ~ +85	32.5	40	47.5	kHz	
Open Circuit Voltage	Vopen	11.4	5±0.25	-30 ~ +85	1.500	1.700	1.900	Vrms	
No Load Shutdown	Tsd	12±1.2	5±0.25	-30 ~ +85	-	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.

The Operating Temperature Range -30 ~ +85° C is only for Sharp display LQ08453DG01, for all other display please request factory.

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

Power Systems – The Power Solution

Web: www.Power-Systems.de
 Email: Info@Power-Systems.de

Address: Hauptstr. 48 ; 74360 Ilsfeld-Auenstein / Germany
 Tel. : + 49 / 70 62 / 67 59 - 6
 Fax: + 49 / 70 62 / 67 59 - 800