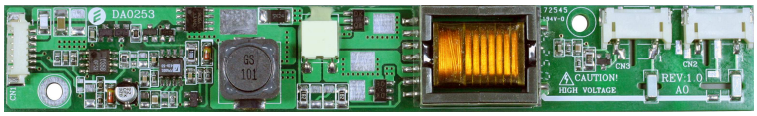
Power Systems

DC-AC INVERTER UNIT

PS-DA0253-080-E-B(S) (9 W DUAL OUTPUTS) (PRELIMINARY INFORMATION)

DESCRIPTION :
This DC/AC Inverter is developed for many kinds of LCDs.
And Optimized for **Sharp: LQ121S1LG61**



APPLICABLE LCD:

10 to 15 inches dual lamps
Lamp Voltage 600 Vrms
Lamp Current 2 x 6.0 mArms
Lamp Start Up Voltage 1.700 Vrms (Vin : 12 Vdc)

FEATURES :

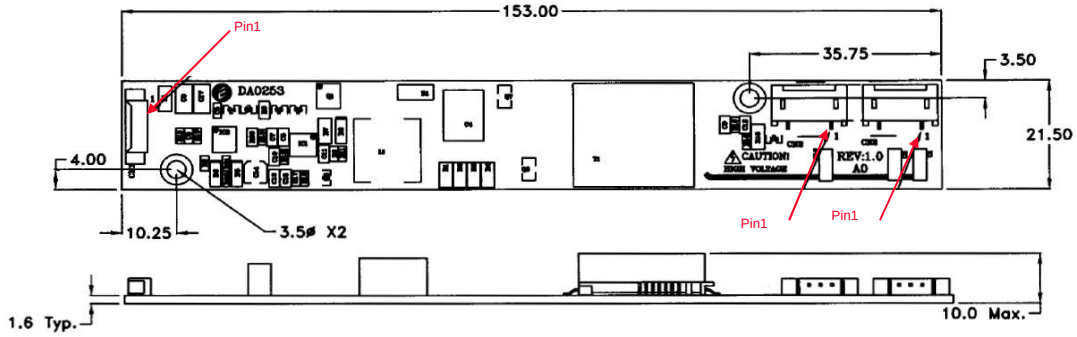
Current feedback circuit
High efficiency
Low noise with voltage resonant circuit
Regulated output current
RoHS compliant (S)
Dimming voltage 0~3 Vdc

TEMPERATURE & HUMIDITY :

Operating Temperature Range	-30˚C ~ +80˚C (for Sharp LQ21S1LG61 only. For other display please request)
Storage Temperature Range	-30˚C ~ +85˚C
Humidity	95 %RH max

DIMENSIONS : **L x W x H** **153 x 21.5 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 ~ 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 ~ 3.0 Vdc
CN 1-7	GND	

Output side CN2 ~ CN3

Pin No.	Symbols	Ratings
CN 2-1	Vhigh	600 Vrms (6.0 mArms)
CN 2-2	N.C.	-
CN 2-3	Vlow	(GND)

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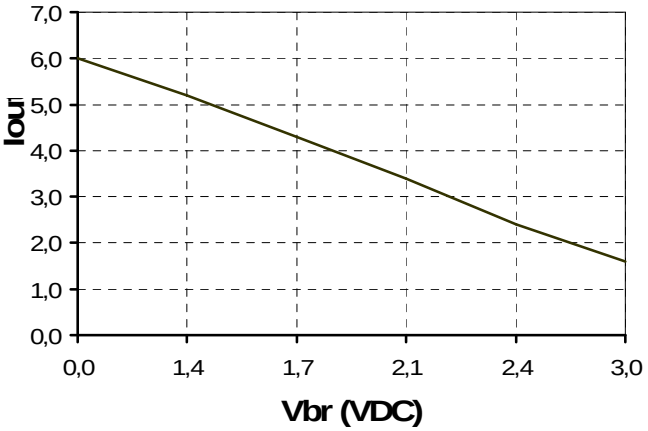
ELECTRICAL CHARACTERISTICS :

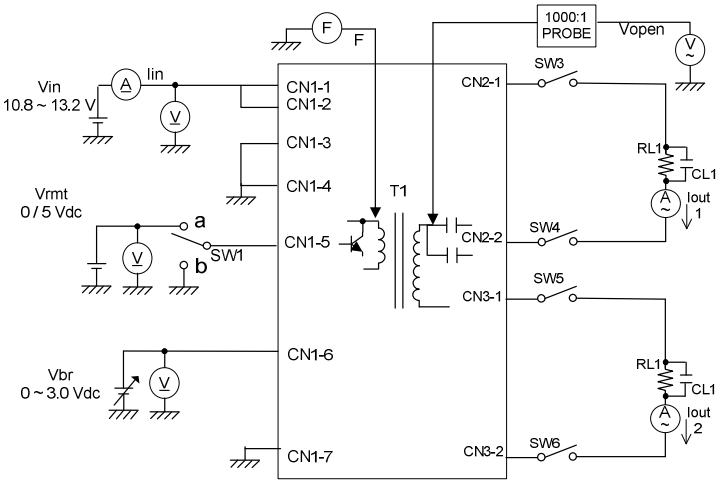
Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vrmt (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	5±0.25	-30 ~ +80	5.5	6.0	6.5	mArms	Duty 100%
Output Current	Iout	12±0.6	5±0.25	-30 ~ +80	1.4	1.6	2.0	mArms	Vbr = 3.0 Vdc
Input Current	Iin	12±1.2	5±0.25	-30 ~ +80	-	0.75	1.0	Adc	
Frequency	F	12±1.2	5±0.25	-30 ~ +80	32.5	40	47.5	kHz	
Open Circuit Voltage	Vopen	11.4	5±0.25	-30 ~ +80	1.500	1.700	1.900	Vrms	
No Load Shutdown	Tsd	12±1.2	5±0.25	-30 ~ +80	1.0	-	-	sec	without load

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

DIMMING CHARACTERISTICS (Reference)



TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

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