

# DC-AC INVERTER UNIT

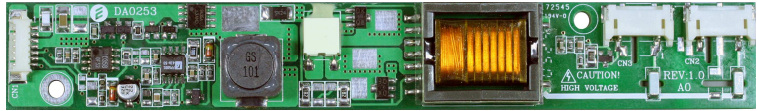
PS-DA0253-240-B(S) (9 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This DC to AC Inverter was developed for many other low LCD Backlight power supply as low profile applications, either for LCD Monitor or Industrial PC.

Optimized for Sharp: LQ121K1LG11



**APPLICABLE LCD:**

- 10 to 15 inches dual lamp type
- Lamp Voltage 660 Vrms
- Lamp Current 2 x 6.5 mArms
- Lamp Start Up Voltage 1.700 Vrms (Vin : 12 Vdc)

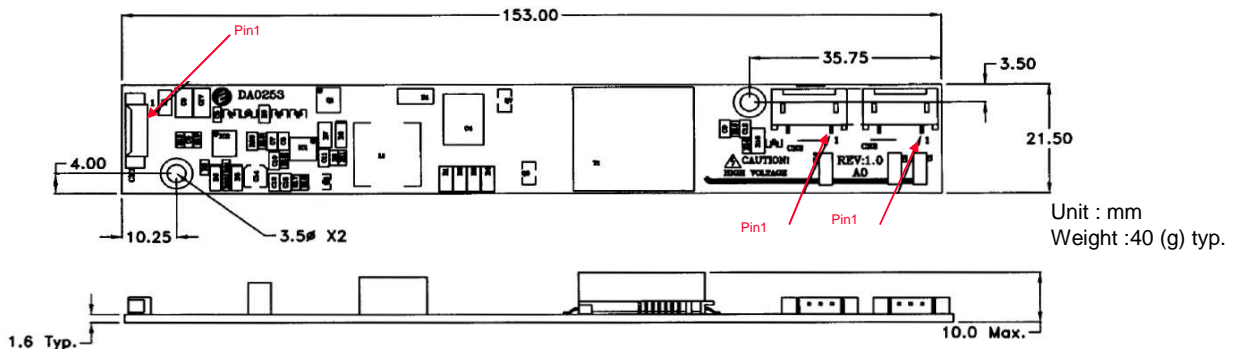
**FEATURES :**

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

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range -10°C ~ +50°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x B x H 153 x 22 x 10 mm



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=1.6mm
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	660 Vrms (6.5 mArms)
CN 2-2	N.C.	-
CN 2-3	Vlow	(GND)

**Power Systems – The Power Solution**

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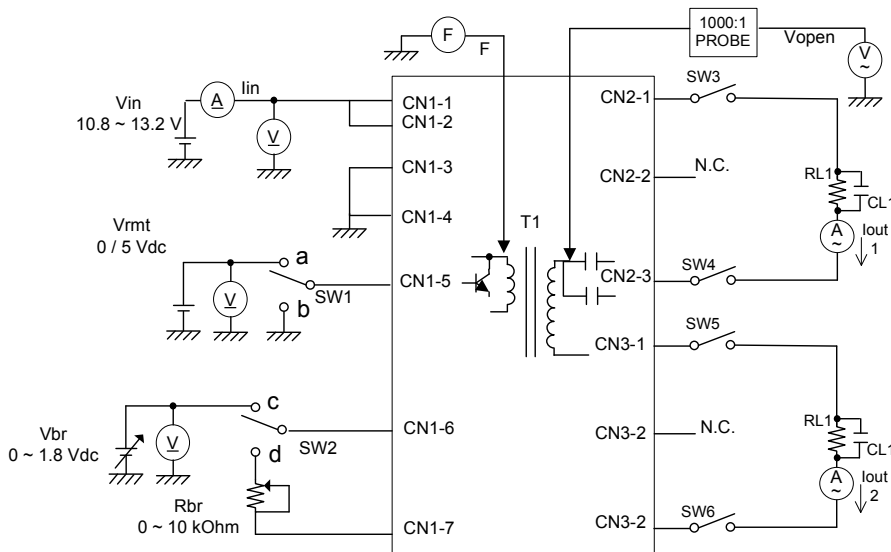
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## ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	0.0	0 ~ +50	6.0	6.5	7.0	m Arms	Duty 100%
Output Current	Iout	12±0.6	1.8	0 ~ +50	1.3	2.0	2.7	m Arms	
Input Current	Iin	12±1.2	0.0	0 ~ +50	-	0.75	1.0	A dc	
Frequency	F	12±1.2	0.0	0 ~ +50	32.5	40	47.5	kHz	
Open Circuit Voltage	Vopen	11.4	0.0	0 ~ +50	1.500	1.700	1.900	V rms	
No Load Shutdown	Tsd	12±1.2	0.0	0 ~ +50	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.

## TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

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

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