

# DC-AC INVERTER UNIT

**PS-DA0137-256-B(S) (5 W SINGLE OUTPUT)**

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for single lamps.  
Optimized for **Sharp: LQ085Y3DG06 (Datasheet from 5. Sep. 2007)**

**APPLICABLE LCD:**

- Lamp Voltage 960 Vrms
- Lamp Current 5.0 mArms
- Lamp Start Up Voltage 2.400Vrms (Vin : 12 Vdc)



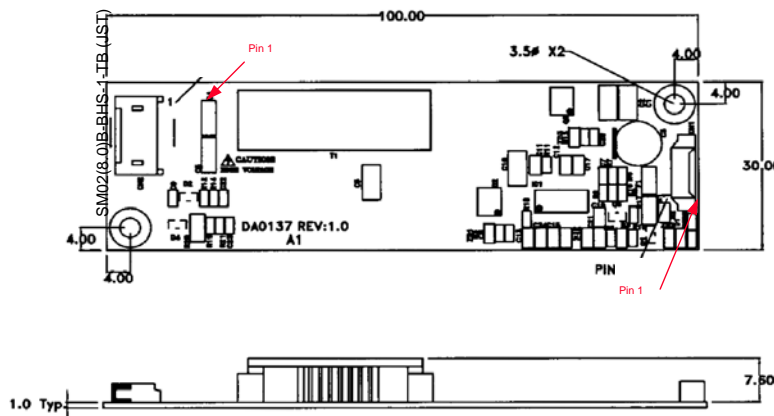
**FEATURES :**

- Remote ON/OFF
- Current balance circuit
- Extra high starting Voltage
- RoHS compliant (S)

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range 0°C ~ +75°C
- Storage Temperature Range -30°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x B x H 100 x 30 x 9 mm



Unit : mm  
Weight :15 (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	53261-0690	Molex or equal
3	Connector CN2	1	SM02(8.0)B-BHS-1-TB	JST or equal

**Power Systems – The Power Solution**

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(PRELIMINARY INFORMATION)

**Input side CN1:**

Pin No.	Symbols	Ratings
CN 1-1	V <sub>in</sub>	10.8 ~ 13.2 Vdc
CN 1-2	V <sub>in</sub>	10.8 ~ 13.2 Vdc
CN 1-3	V <sub>rmt</sub>	0 ~ 0.4 = OFF / 2.5 ~ 5.5 = ON
CN 1-4	V <sub>br</sub>	0 ~ 5.0 Vdc
CN 1-5	GND	-
CN 1-6	GND	-

**Output side CN2:**

Pin No.	Symbols	Ratings
CN 2-1	V <sub>high</sub>	960 Vrms (5.0 mArms)
CN 2-2	N.C.	-
CN 2-3	V <sub>low</sub>	(GND)

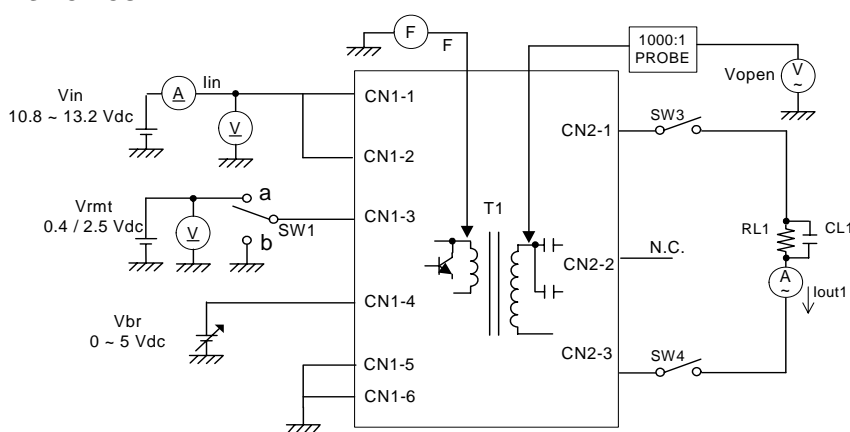
**ELECTRICAL CHARACTERISTICS :**

Parameters	Symbols	Conditions			Specification			Unit	Note
		V <sub>in</sub> (V)	V <sub>br</sub> (V)	T <sub>u</sub> (°C)	Min.	Typ.	Max.		
Output Current	I <sub>out</sub>	12±1.2	0.0	0 ~ +75	4.5	5.0	5.5	mArms	Duty 100%
Output Current	I <sub>out</sub>	12±0.6	5.0	0 ~ +75	-	25	-	%	
Input Current	I <sub>in</sub>	12±1.2	0.0	0 ~ +75	-	0.5	0.55	Adc	
Frequency	F	12±1.2	0.0	0 ~ +75	50	-	80	kHz	
Open Circuit Voltage	V <sub>open</sub>	11.4	0.0	0 ~ +75	2.250	2.400	-	Vrms	
No Load Shutdown	T <sub>sd</sub>	12±1.2	0.0	0 ~ +75	-	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.

Note 2: Open circuit on all lamps for more than 3 sec., will shut the inverter down.

**TEST CIRCUIT :**



SW1	Operation of unit
a	Operation
b	Non operation

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