

DC-AC INVERTER UNIT

PS-DA0151-02(S) (5 W SINGLE OUTPUT)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile DC to AC Inverter is developed for single lamps.
Optimized for Sharp: LQ057Q3DC12, 26th Sept. 2006

APPLICABLE LCD:

- Lamp Voltage 690 Vrms
- Lamp Current 5.0 mArms
- Lamp Start Up Voltage 2.400 Vrms (Vin : 5 Vdc)



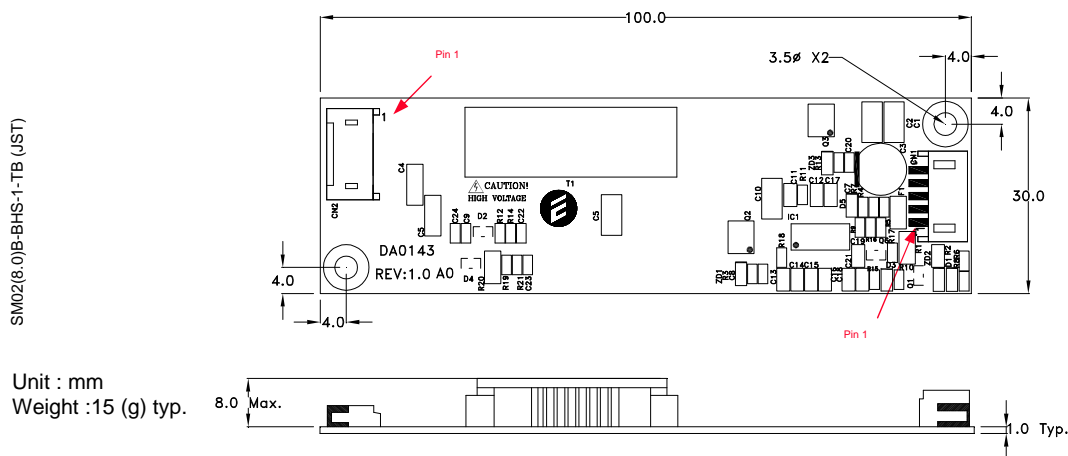
FEATURES :

- Current balance circuit
- Extra high starting Voltage
- Dimming function over ext. PWM-signal
- RoHS compliant (S)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -30°C ~ +70°C (only LQ057Q3DC12)
- Storage Temperature Range -30°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x B x H 100 x 30 x 9 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=1mm
2	Connector CN1	1	S5B-PH-SM3	JST 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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Input side CN1:

Pin No.	Symbols	Ratings
CN 1-1	Vin	4.75~5.25 Vdc
CN 1-2	GND	-
CN 1-3	Ext. PWM	0 ~ 5 Vdc (L activ)
CN 1-4	N.C.	-
CN 1-5	N.C.	-

Output side CN2:

Pin No.	Symbols	Ratings
CN 2-1	VLOW	(GND)
CN 2-2	N.C.	-
CN 2-3	VHIGH	690Vrms (5mArms)

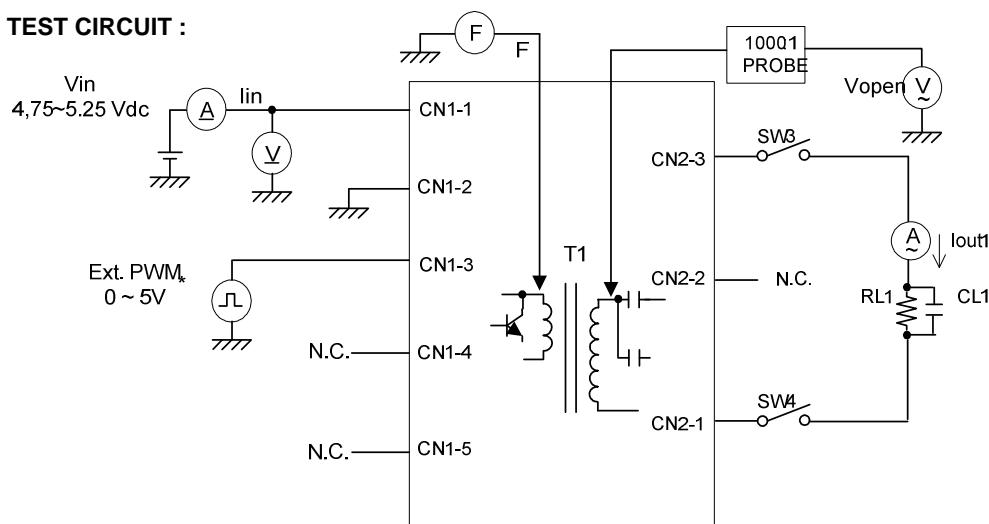
ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	5±0.25	0.0	-30 ~ +70	4.5	5.0	5.5	mArms	Duty 100%
Output Current	Iout	5±0.25	5.0	-30 ~ +70	-	10	-	%	
Input Current	Iin	5±0.25	0.0	-30 ~ +70	-	0.7	1.1	Adc	
Frequency	F	5±0.25	0.0	-30 ~ +70	50	60	70	kHz	
Open Circuit Voltage	Vopen	5.0	0.0	-30 ~ +70	2.200	2.400	2.700	Vrms	
No Load Shutdown	Tsd	5±0.25	0.0	-30 ~ +70	-	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: The external PWM frequency should be in a range of 100 ~ 500 Hz. For other frequency please request. The optimum is normally at 250 Hz, and minimizes the interference disturbances of the vertical sync. frequency.

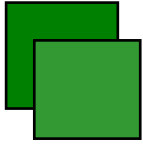
TEST CIRCUIT :



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ORDER KEY :

PS-DA0151-02-x

With order of this inverter please give the following key:

- x Without Vrmt
- A: With Vrmt by CN1 Pin5

Examples:

PS-DA0151-01 (S)
Inverter without Vrmt

PS-DA0151-01-A (S)
Inverter with Vrmt