

# DC-AC INVERTER UNIT

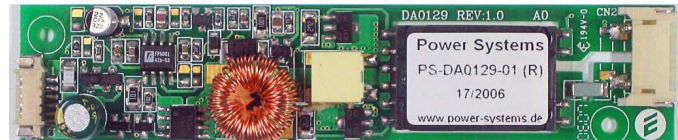
PS-DA0129-176-E-B(S) (5 W SINGLE OUTPUT)

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

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

Optimized for LQ057V3DG01, 29. Mai 2007



**APPLICABLE LCD:**

- 5 to 15 inches single lamp type
- Lamp Voltage 690 Vrms
- Lamp Current 5.0 mArms
- Lamp Start Up Voltage 1.800 Vrms (Vin : 12 Vdc)

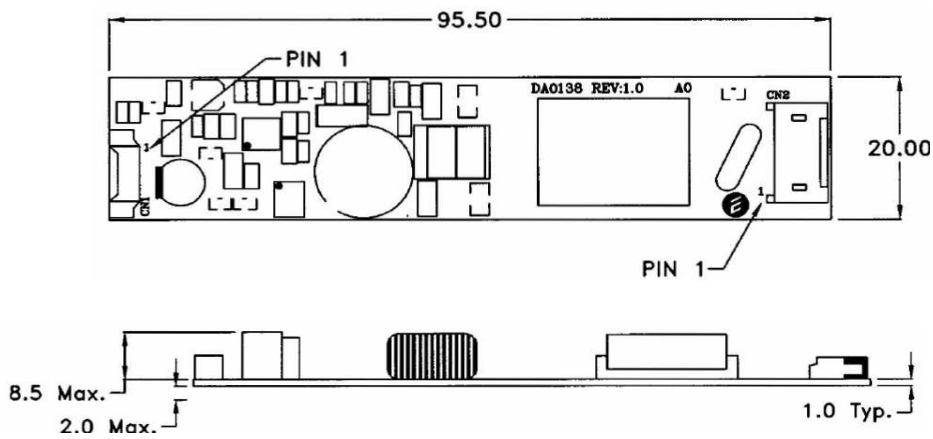
**FEATURES :**

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

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range -30°C ~ +80°C
- Storage Temperature Range -30°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x W x H 95.5 x 20 x 9.5 mm



Unit : mm  
Weight :20(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    | 53261-0590              | 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  | Vin     | 9.6 ~ 15.0 Vdc                 |
| CN 1-2  | GND     | -                              |
| CN 1-3  | Vrmt    | 0 ~ 0.5 = OFF / 2.5 ~ Vin = ON |
| CN 1-4  | Vbr     | 0 ~ 3.0 Vdc                    |
| CN 1-5  | N.C.    | -                              |

**Output side CN2:**

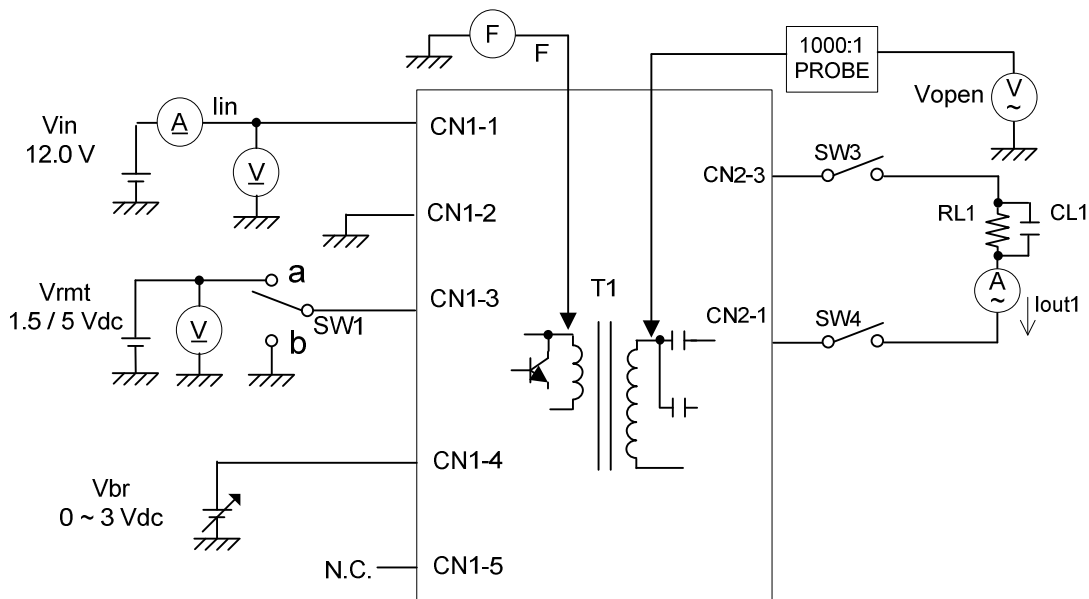
| Pin No. | Symbols | Ratings            |
|---------|---------|--------------------|
| CN 2-1  | Vlow2   | (2V)               |
| CN 2-2  | N.C.    | -                  |
| CN 2-3  | Vhigh2  | 650 Vrms (5 mArms) |

**ELECTRICAL CHARACTERISTICS :**

| Parameters           | Symbols | Conditions |         |           | Specification |       |       | Unit            | Note         |
|----------------------|---------|------------|---------|-----------|---------------|-------|-------|-----------------|--------------|
|                      |         | Vin (V)    | Vbr (V) | Tu (°C)   | Min.          | Typ.  | Max.  |                 |              |
| Output Current       | Iout    | 9.6~15     | 0.0     | -30 ~ +80 | 4.5           | 5.0   | 5.5   | mArms           |              |
| Output Current       | Iout    | 9.6~15     | 3.0     | -30 ~ +80 | 1.5           | 2.0   | 2.5   | mArms           |              |
| Input Current        | Iin     | 12         | 0.0     | -30 ~ +80 | -             | 0.42  | 0.68  | A <sub>dc</sub> |              |
| Frequency            | F       | 9.6~15     | 0.0     | -30 ~ +80 | 42.5          | 50    | 57.5  | kHz             |              |
| Open Circuit Voltage | Vopen   | 9.6~15     | 0.0     | -30 ~ +80 | 1.700         | 1.800 | 2.000 | Vrms            |              |
| No load Shutdown     | Tsd     | 9.6~15     | 0.0     | -30 ~ +80 | -             | 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 :**



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