



Endicott Research Group, Inc.

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## Specifications and Applications Information

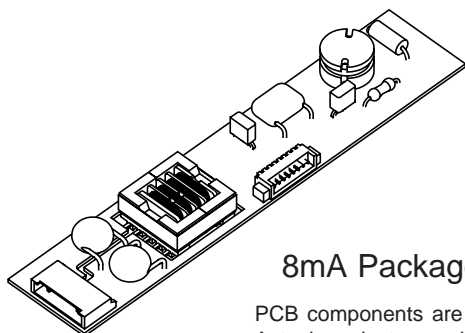
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Preliminary

The ERG 8mA23328 (8m Class) low profile dc to ac inverter is specifically designed to power the AU Optronics B104SN02 LCD display module to a moderate brightness level from a +5 volt dc source.

This low profile inverter features:

- ✓ Less Than 8 mm in Height
- ✓ LCD Module Specific
- ✓ Display Compatible Output Connector
- ✓ Firm Specifications
- ✓ Application Information
- ✓ Designed, Manufactured and Supported in the USA
- ✓ Custom Input and Output Voltages
- ✓ Flexible System Interface
- ✓ Notebook Display Head Compatible



8mA Package

PCB components are shown for reference only.  
 Actual product may differ from that shown.

### Connectors

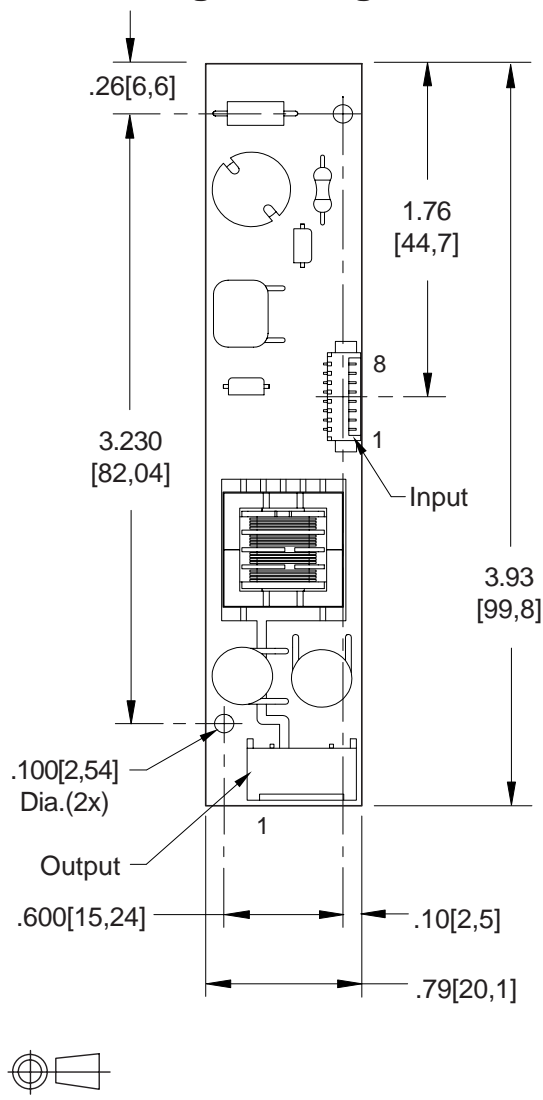
Input J1  
 Molex 53261-0890

Output J2  
 JST SM03(4.0)B-BHS-1-TB

# 8mA23328

## Two Lamp DC to AC Inverter

### Package Configuration



### Pin Descriptions

J1-1 Vin	J2-1 ACcommon
J1-2 Vin	J2-2 ACout
J1-3 GND	J2-3 ACout
J1-4 GND	
J1-5 Control *	
J1-6 N/C	
J1-7 N/C	
J1-8 GND	

\* Valid when the "C" jumper is removed



### Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +5.5	Vdc
Operating Temperature	To	-0 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C

### Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	Vin	+4.50 to 5.25	Vdc

### Electrical Characteristics

Unless otherwise noted Vin = 5.00 Volts dc and Ta = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current	lin	-	1.73	1.99	Adc
Operating Frequency	Fo	47	52	57	KHz
Minimum Output Voltage	Vout (min)	1050	-	-	Vrms
Efficiency	-	-	78	-	%
Output Current (per lamp)	lout	-	6	-	marms
Output Voltage (When powering a load simulating the referenced display)	Vout	-	560	-	Vrms
Pin5 Input Current Requirement	-	-	16	-	madc

After tube has been allowed to warm-up for 5 minutes  
External Disable Circuit shown on page 3.

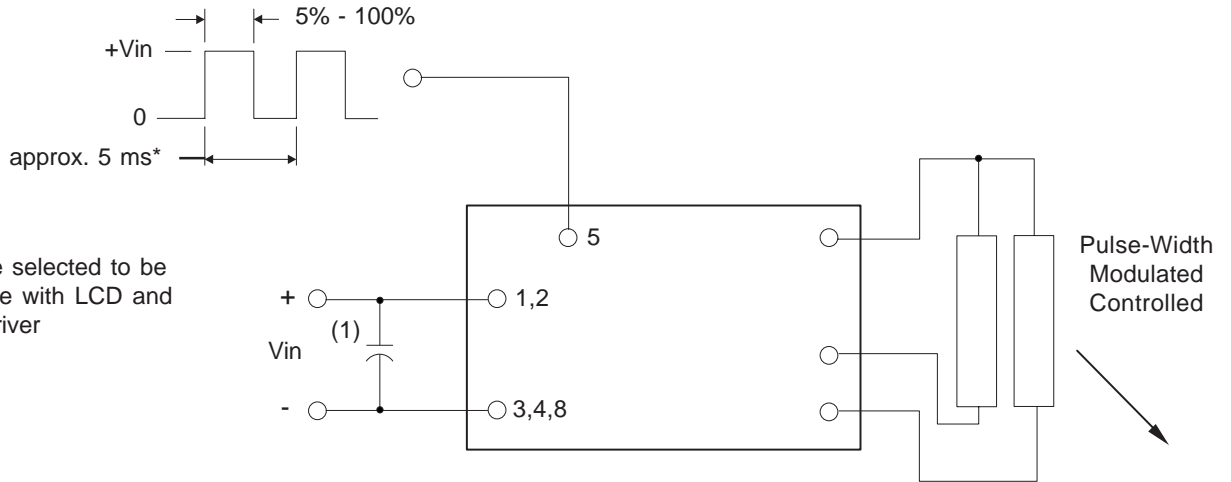
Specifications subject to change without notice.

#### Application Notes:

- 1) The minimum distance from high voltage areas of the inverter to any conductive material should be .12 inches per kilovolt of starting voltage.
- 2) Mounting hardware should be non-conductive.
- 3) Open framed inverters should not be used in applications at altitudes over 10,000 feet.
- 4) Contact ERG for possible exceptions.



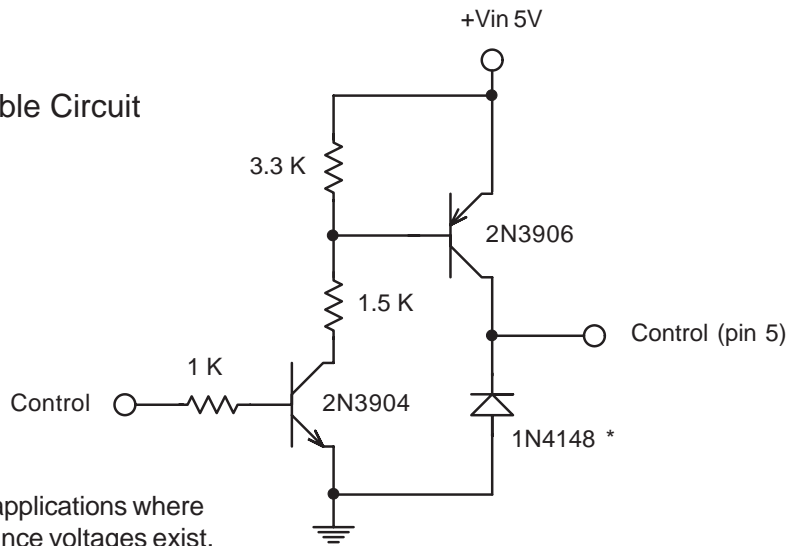
Dimming Option



\* should be selected to be compatible with LCD and display driver

Note 1 Low ESR type input by-pass capacitor (22 uf - 100uf) may be required to reduce reflected ripple.

Disable Circuit



\* Remove 1N4148 in applications where excessive ground bounce voltages exist.



Endicott Research Group, Inc. (ERG) reserves the right to make changes in circuit design and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by ERG is believed to be accurate and reliable. However, no responsibility is assumed by ERG for its use.