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E1449F



## Specifications and Applications Information

04/27/12

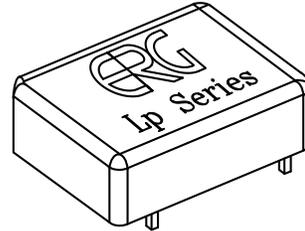
Preliminary

## LP Series Single Lamp DC to AC Inverter

The ERG E1449F (LP Series) dc to ac inverter is specifically designed to power a Sharp LM24014H EL lamp to a moderate brightness level from a +5 volt dc source.

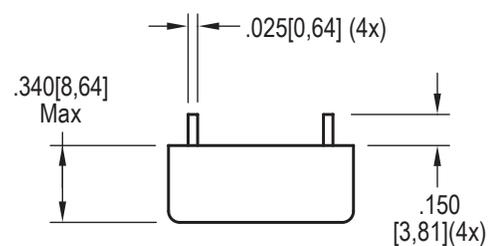
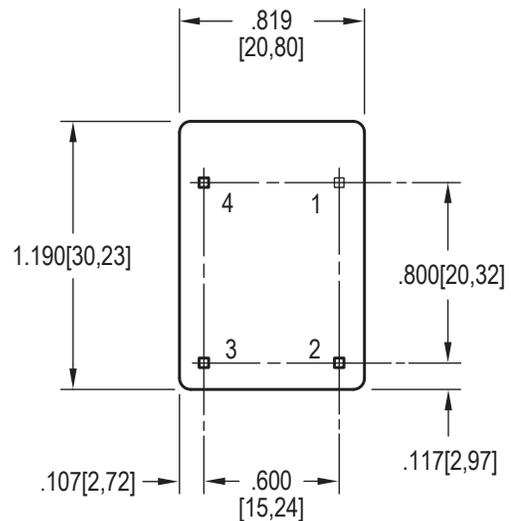
This low profile inverter features:

- ✓ 9 mm in Height
- ✓ High Efficiency
- ✓ Firm Specifications
- ✓ Application and Lamp Specific
- ✓ Designed, Manufactured and Supported in the USA
- ✓ Custom Input and Output Voltages

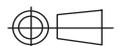


"LP" Series Package

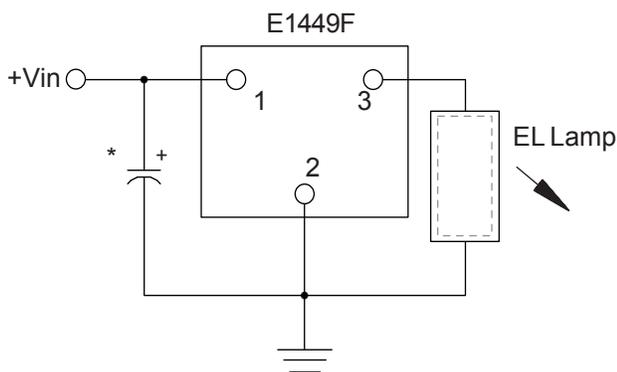
### Package Configuration



1. +Vin
2. GND
3. Vout
4. N/C



### Connection Diagram



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



## Absolute Maximum Ratings

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

## Operating Characteristics

With a load simulating the EL lamp (Load = .024 uF in parallel with 59 kOhms) and lamp warm-up of 5 minutes.  
 Unless otherwise noted Vin = 5.00 Volts dc and Ta = 25 °C.

Characteristic	Symbol	Min	Typ	Max	Units
Input Voltage	Vin	+4.50	+5.00	+5.25	Vdc
Component Surface Temperature (note 1)	Ts	-20	-	+80	°C
Input Current (note 2)	lin	-	0.055	0.070	Adc
Input Current (notes 2,3)	lin	-	0.045	-	Adc
Operating Frequency	Fo	350	400	450	Hz
Output Voltage (note 3)	Vout	60	70	80	Vrms

Specifications subject to change without notice.

### Important Information

Protection:      Open circuit..... Indefinite  
                          Short circuit..... Short Term

This is a load dependent device. The output should be verified whenever the designed load or input voltage is changed.

- (Note 1) Surface temperature must not exceed 80 degrees C; thermal management actions may be required.  
 (Note 2) Input current in excess of maximum may indicate load/inverter mismatch condition, which can result in reduced reliability. Please contact ERG technical support.  
 (Note 3) When powering the referenced lamp.

### Application Notes:

- 1) Printed circuit boards to be free of traces beneath the inverter.
- 2) The minimum distance from high voltage areas of the inverter to any conductive material should be .12 inches per kilovolt of starting voltage.
- 3) Contact ERG for possible exceptions.



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.