



Endicott Research Group, Inc.

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E1638

## Specifications and Applications Information

09/28/05

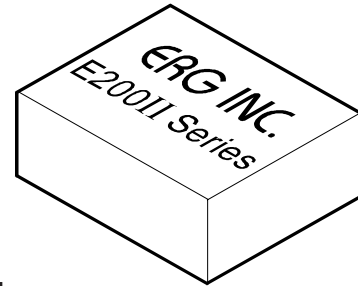
Preliminary

The E1638 (E200II Series) dc to ac inverter is specifically designed to power the Samsung UG-24B-05BP and UG-24B-07BP LCD displays to a moderate brightness level from a +12 volt dc source.

The E1638's small size, encapsulated package and low input power requirements (typically 2.2 watts) makes it the ideal power source for battery applications where small size, high efficiency and reliability are critical.

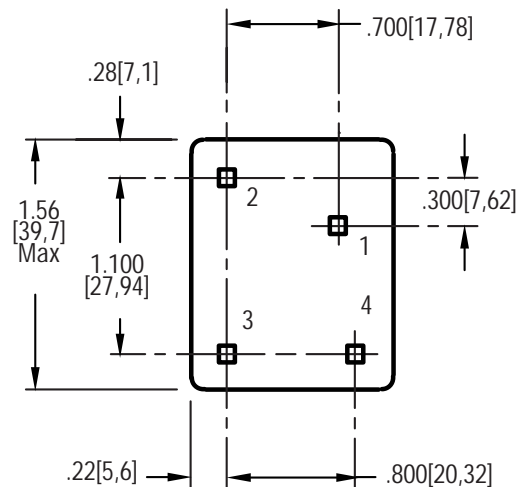
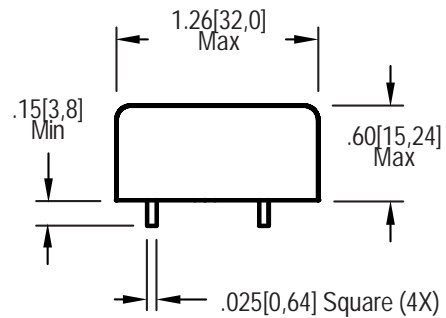
This standard inverter is designed to satisfy the most common cold-cathode lighting requirements for the UG-24B-05BP and UG-24B-07BP displays. Custom units, providing different inputs, outputs or package refinements are available.

## Single Lamp DC to AC Inverter

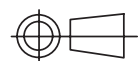


E200 Package

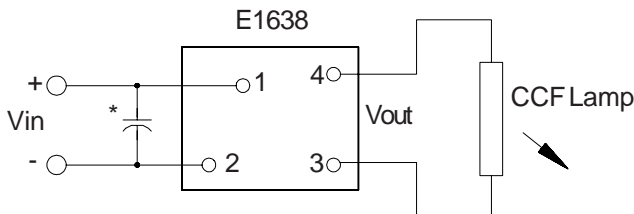
### Package Configuration



1. Vin(+)
2. Vin(-)
3. Vout(AC)
4. Vout(AC)



### Connection Diagram



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

**Absolute Maximum Ratings**

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +13.2	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	+10.8 to 12.6	Vdc

**Electrical Characteristics**

Unless otherwise noted Vin = +12.00 Volts dc and Ta = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current	Iin	-	.19	.22	Adc
Operating Frequency	Fo	24	29	34	KHz
Minimum Output Voltage	Vout (min)	1050	-	-	Vrms
Efficiency	-	-	79	-	%
Output Current per CCFL	Iout	-	5.3	-	marms
Output Voltage (When powering a Samsung UG-24B-05BP or UG-24B- 07BP display)	Vout	-	340	-	Vrms

After lamp has been allowed to warm-up for 5 minutes

Specifications subject to change without notice.

**Application Notes:**

- 1) Printed circuit boards should 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.



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page 2 of 2.