

**LCD Backlight Driver** 

# Model KLS-I50A-RH

ROHS

12 Volt Input

Dual Tube CCFT Inverter

**Brightness Control** 

#### Physical Specifications

Dimensions: 120mm x 40mm x 10.0mm

(4.72" x 1.57" x 0.39")

Operating Temp: 0 to 60°C, convection cooling Relative Humidity: 20% to 90%, non-condensing

Storage: -20 to 85°C/5-95% RH non-condensing

Impact Resistance: 50G half wave per 2 msec Vibration Resistance: 10-55-10 Hz/min @ 1.5mm



## Input Specifications\*

Item	Condition	Standard	
Input Voltage Rated Tolerance	Continuous Operation Starting Condition (Discharge Starting Voltage)	12 Vdc 10.8 V - 13.2 V 10.8 V - 13.2 V	
Max. Input Current	$V_{IN}$ = 12 Vdc Luminance @ Max.	1.2 A Typ.	
Max. Input Power	$V_{IN}$ = 12 Vdc Luminance @ Max.	16 W Max.	
DC-Bright	louт = Max louт = Min	3.3 V 0 V	
On/Off Input Current	On Vcont = 3.0 - 5.0 V	Imax = 0.1 mA	
	Off VCONT = GND-0.8 Vdc	ΙΜΑΧ = 16 μΑ	

<sup>\*</sup>Above Specifications Occur @ 25  $\pm$  5°C

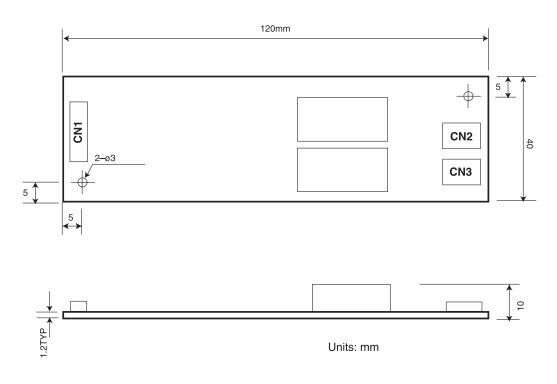
## Output Specifications\*

Item	Condition	Standa	Standard		
		MIN	TYP	MAX	
Output Voltage (Vrms)	V <sub>IN</sub> = 12 Vdc	_	930		
Starting Voltage (Vrms)	V <sub>IN</sub> = 10.8 Vdc	2000			
Tule a Comment for an and arrange (see Aurana)	Luminance @ Max. (High)	_	6.5	_	
Tube Current for per Lamp (mArms)	Luminance @ Max. (Low)	_	4.0	_	
	Luminance @ Min. (High)		3.0	_	
	Luminance @ Min. (Low)		2.0		
Max. Power Output for 2 Lamps (W)	$V_{IN} = 12 \text{ Vdc/Luminance } @ \text{Max.}$	_	13		
Ignition Frequency (kHz) Luminance @ Max.		40	55	80	



## Luminance Variance

Item	Condition	Applied Voltage	Output Current
Luminance @ Max. (High)		Vbr= 3.3 V, Vsel = 5.0 V	6.5 mA (one lamp)
Luminance @ Max. (Low)		Vbr= 3.3 V, Vsel = 0 V	4 mA (one lamp)
Luminance @ Min. (High)		Vbr= 0 V, Vsel = 5.0 V	3 mA (one lamp)
Luminance @ Min. (Low)		Vbr= 0 V, Vsel = 0 V	2 mA (one lamp)



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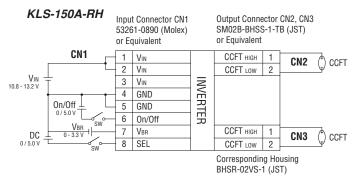






### **Tech Notes**

#### **Connection Diagram**



#### **DC Brightness Control Method\***

Maximum output current can be adjusted by applying bias voltage or using a variable resistor as shown below.



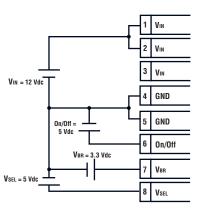
lout = 3mA

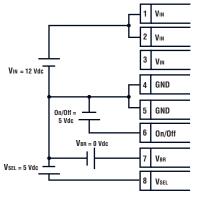
Vin = 12V.

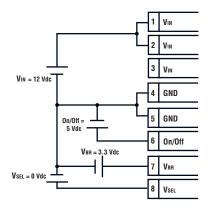
Vbr = OV,

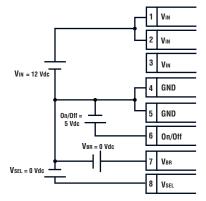
Vsel = 5V

On/Off = 5V,









lout = 2mA (Vin = 12V, On/Off = 5V, Vbr = 0V, Vsel = 0V)

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lout = 4mA (Vin = 12V, On/Off = 5V, Vbr = 3.3V, Vsel = 0V)

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