

Model

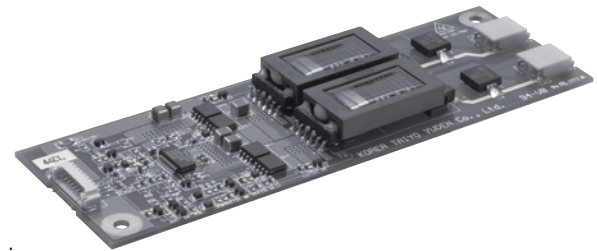
# KLS-150A-RH

RoHS  
COMPLIANT

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		
		MIN	TYP	MAX
Input Voltage Rated Tolerance	—	12 Vdc		
	Continuous Operation Starting Condition (Discharge Starting Voltage)	10.8 V - 13.2 V		
Max. Input Current	V <sub>IN</sub> = 12 Vdc Luminance @ Max.	1.2 A Typ.		
Max. Input Power	V <sub>IN</sub> = 12 Vdc Luminance @ Max.	16 W Max.		
DC-Bright	I <sub>OUT</sub> = Max	3.3 V		
	I <sub>OUT</sub> = Min	0 V		
On/Off Input Current	On V <sub>CONT</sub> = 3.0 - 5.0 V	I <sub>MAX</sub> = 0.1 mA		
	Off V <sub>CONT</sub> = GND-0.8 Vdc	I <sub>MAX</sub> = 16 μA		

\*Above Specifications Occur @ 25 ± 5°C

### Output Specifications\*

Item	Condition	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	—	—
Tube Current for per Lamp (mArms)	Luminance @ Max. (High)	—	6.5	—
	Luminance @ Max. (Low)	—	4.0	—
	Luminance @ Min. (High)	—	3.0	—
	Luminance @ Min. (Low)	—	2.0	—
Max. Power Output for 2 Lamps (W)	V <sub>IN</sub> = 12 Vdc/Luminance @ Max.	—	13	—
Ignition Frequency (kHz)	Luminance @ Max.	40	55	80

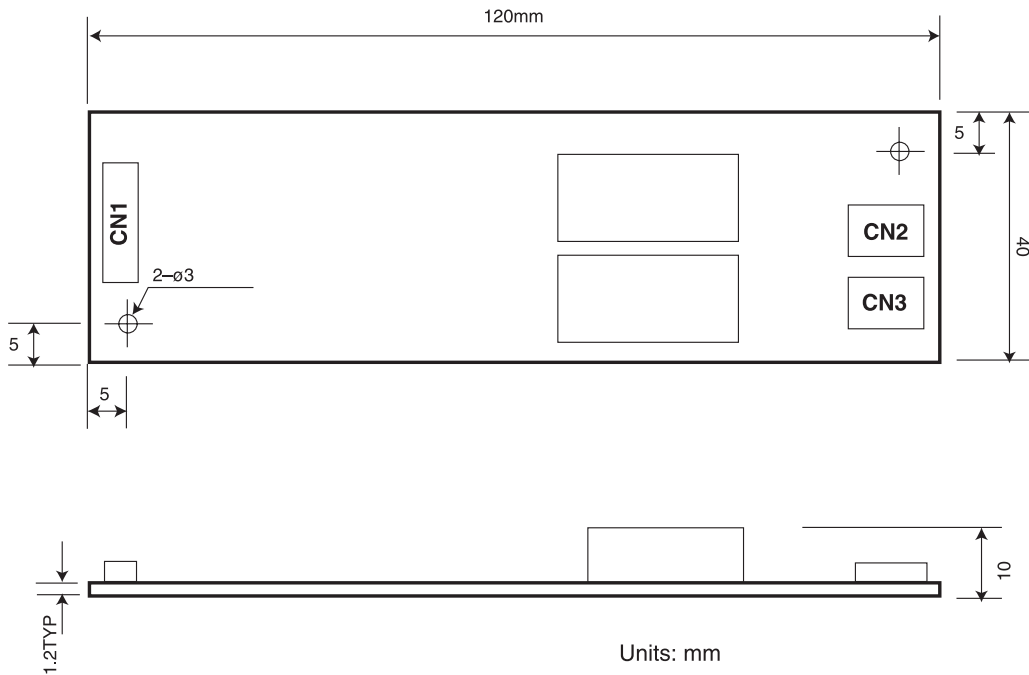
\*Above specifications occur @ 25 ± 5°C.

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## 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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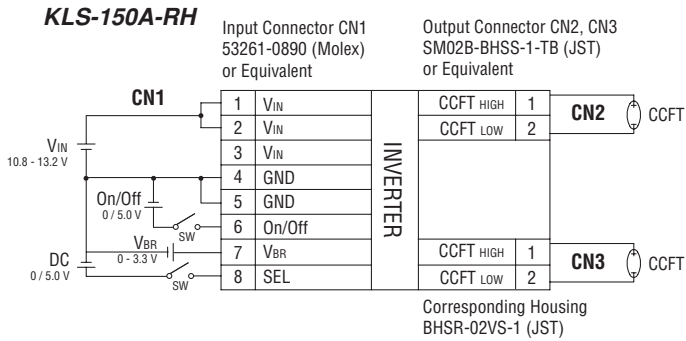
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Tech Notes

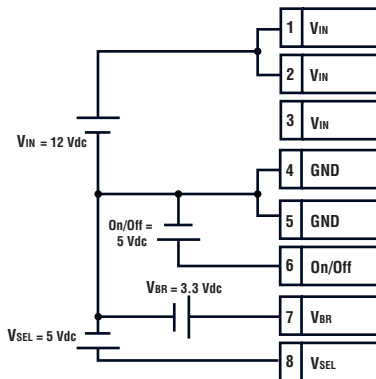
## Connection Diagram



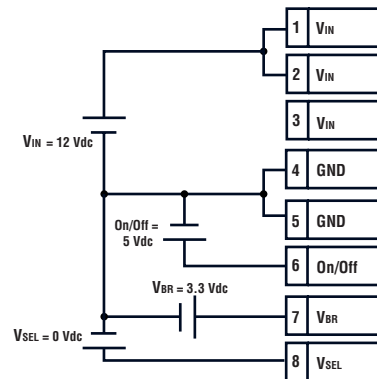
## DC Brightness Control Method\*

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

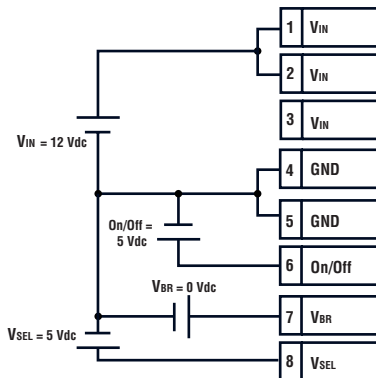
$I_{out} = 6.5mA$   
( $V_{in} = 12V$ ,  
 $On/Off = 5V$ ,  
 $V_{br} = 3.3V$ ,  
 $V_{sel} = 5V$ )



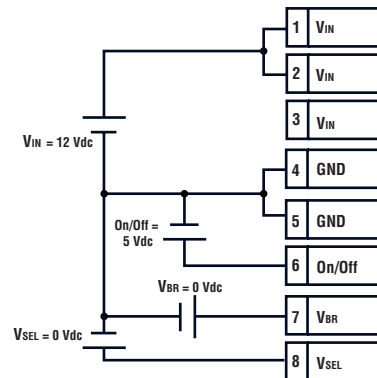
$I_{out} = 4mA$   
( $V_{in} = 12V$ ,  
 $On/Off = 5V$ ,  
 $V_{br} = 3.3V$ ,  
 $V_{sel} = 0V$ )



$I_{out} = 3mA$   
( $V_{in} = 12V$ ,  
 $On/Off = 5V$ ,  
 $V_{br} = 0V$ ,  
 $V_{sel} = 5V$ )



$I_{out} = 2mA$   
( $V_{in} = 12V$ ,  
 $On/Off = 5V$ ,  
 $V_{br} = 0V$ ,  
 $V_{sel} = 0V$ )



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