

Model

# LS530-RH

12 Volt Input

Dual Tube CCFT Inverter

Brightness Control

# RoHS COMPLIANT

### Physical Specifications

Dimensions:	20mm x 130mm x 14mm (0.787" x 5.12" x 0.551")
Weight:	36g (1.28 oz.)
Operating Temp:	0 to 60°C, convection cooling
Relative Humidity:	20% to 90%, non-condensing
Storage:	-20 to 85°C/5-95% RH
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)	9.6 Vdc - 14.4 Vdc		
Input Current	$V_{IN} = 12.0$ Vdc, $V_{BR} = 0$ V Luminance @ Max.	0.65 A		
Rush Current	$V_{IN} = 14.4$ Vdc Luminance @ Max.	5.0 A zero-p/20 $\mu$ S or less		
Max. Input Power	$V_{IN} = 12.0$ Vdc, $V_{BR} = 0$ V Luminance @ Max.	8 W		
On/Off Input Current	On/Off $L = 0.0 - 0.4$ Vdc $V_{IN} = 14.4$ Vdc	$I_{LOW} = -0.45$ mA or more (Lamp Lighting)		
	On/Off H = Open or $V_{IN}$	— (Lamp Off)		

\*Above Specifications Occur @ 25  $\pm$  5°C

### Output Specifications\*

Item	Condition	Standard		
		MIN	TYP	MAX
Output Voltage (Vrms)	$V_{IN} = 9.6$ Vdc, $V_{BR} = 0$ V	1500	—	—
Tube Current (mArms)	Luminance @ Max. ( $V_{IN} = 12.0$ V, $V_{BR} = 0$ V)	—	7.0	—
	Luminance @ Min. ( $V_{IN} = 12.0$ V, $V_{BR} = 2.5$ V)	—	3.0	—
Max. Power Output (W)	$V_{IN} = 12$ Vdc/Luminance @ Max.	—	—	4.0
Ignition Frequency (kHz)	Luminance @ Max.	—	60	—

\*Above specifications occur @ 25  $\pm$  5°C &  $V_{IN} = 9.6 - 15$  Vdc.

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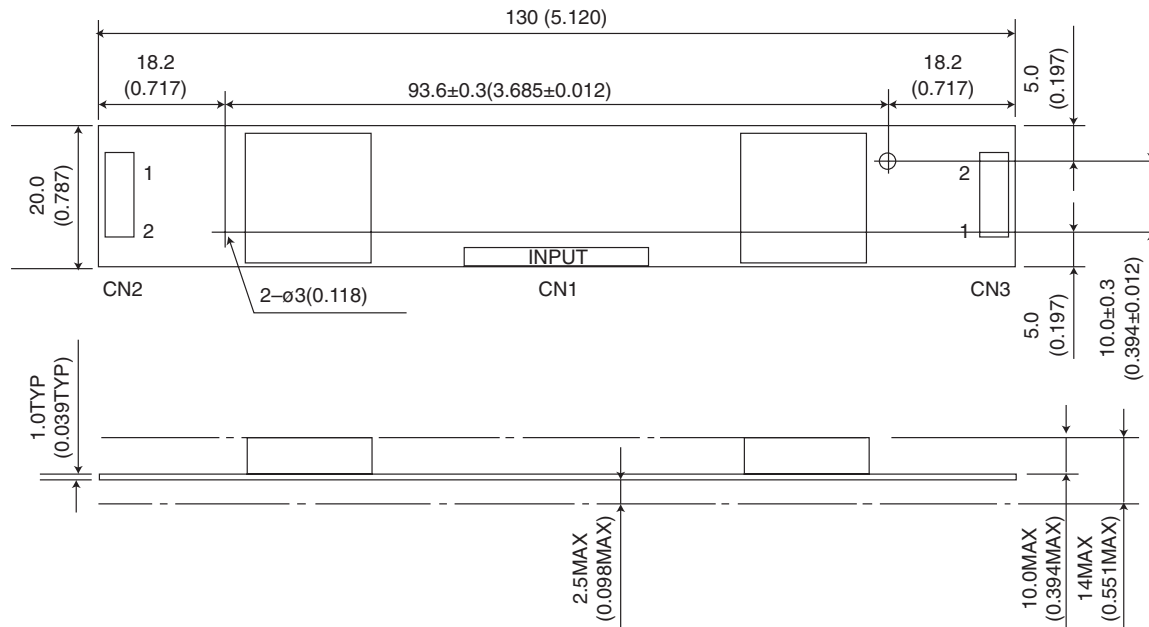
## Insulating Withstand Voltage

Item	Rating Description	
Insulating Withstand Voltage	Primary - Secondary	2.0 kVA Impulse
Insulating Resistance	Primary - Secondary Winding - Core	500 Vdc More than 100 MΩ

\* Apply voltage to pin 6.

## Luminance Variance

Item	Condition	Applied Voltage	Output Current
Luminance @ Max.	Btwn. pin 6 & 7	Vbr = 0.0 V	7.0 mA
Luminance @ Min.	Btwn. pin 6 & 7	Vbr = 2.5 V	3.0 mA



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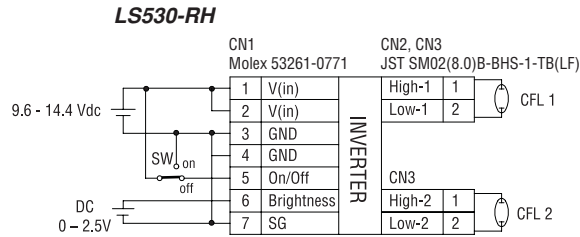
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## Tech Notes

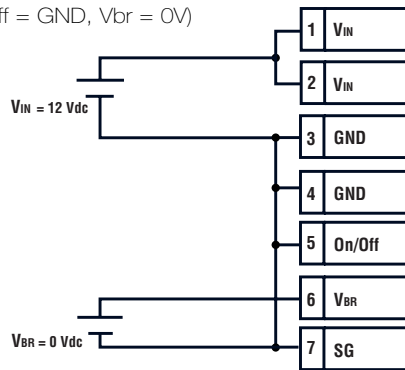
### Connection Diagram



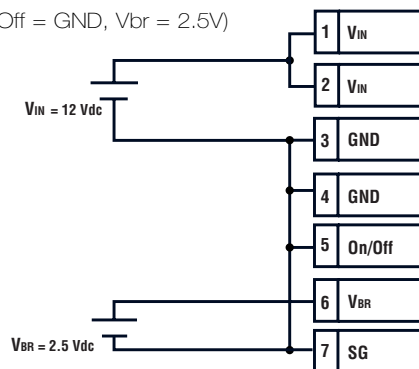
### DC Brightness Control Method\*

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

$I_{out} = 7\text{mA}$  ( $V_{in} = 12\text{V}$ , On/Off = GND,  $V_{br} = 0\text{V}$ )



$I_{out} = 3\text{mA}$  ( $V_{in} = 12\text{V}$ , On/Off = GND,  $V_{br} = 2.5\text{V}$ )



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