

CCFL INVERTER

(For Dual Tube Applications)

GENERAL DESCRIPTION

The AC7-12-1873 is designed to power 2 CCFLs to a nominal power level of 9.7 Watts from an input voltage of +12VDC

Intensity control is accomplished by the user providing a variable DC voltage level at pin 3 of CON1.

Enable control is accomplished at pin 4 of CON1.

All outputs are open and short circuit protected.

MECHANICAL/ENVIRONMENTAL

Weight = 14 grams

Altitude = 10,000 ft max.

Humidity < 85% non-condensing

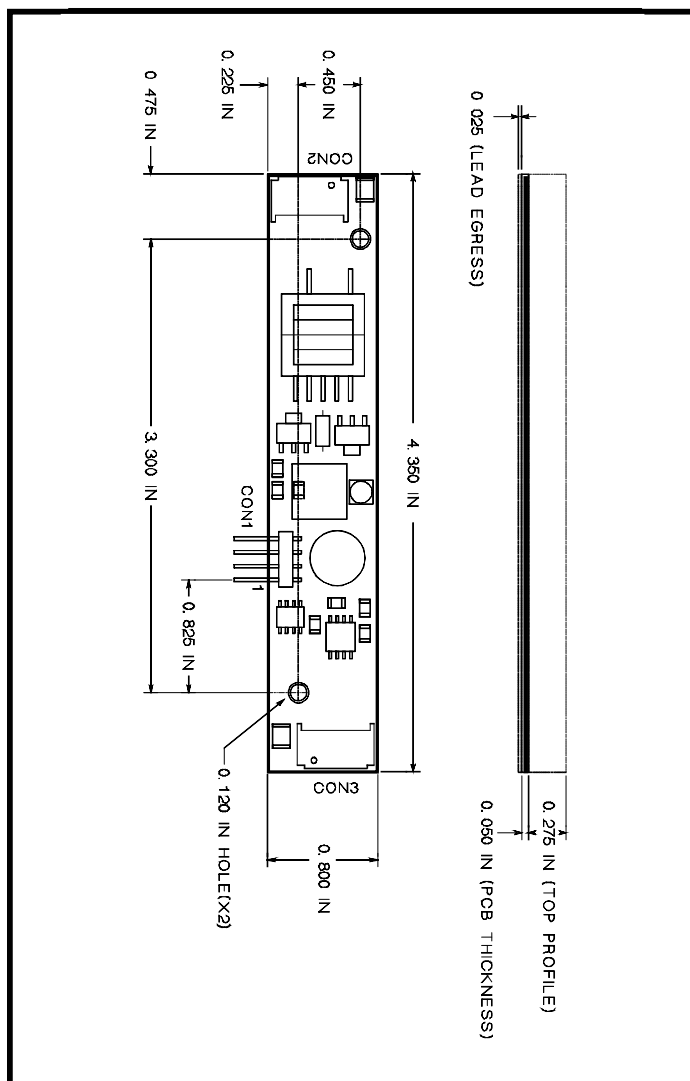
Size (L x W x H) = 4.35 IN x 0.80 IN x 0.350 IN

PCB thickness = 0.050 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

CCFL Output Connectors = CON2 and CON3



INPUT CONNECTOR		OUTPUT CONNECTORS	
CON1		CON2, CON3	
MOLEX 22-28-8041		JST SM03(4.0)B-BHS-1-TB(LF)	
PIN#	FUNCTION	PIN#	FUNCTION
1	+VIN	1	CCFL HOT
2	GND	2	NC
3	VCNTL	3	CCFL COLD
4	ENABLE		

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 13.2	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	13.7	W
Top	Operating Temperature (Still air ambient around Inverter)	-20 to +70	°C
Tstg	Storage Temperature	-20 to +105	°C

*Maximum Ratings are those values beyond which damage to the inverter may occur

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.8	13.2	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	435	725	Vrms
Vcntl	Intensity Control	0	5.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12.0V, Lsv = 580Vrms, Vcntl = +5.0V, Enable = +5.0V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage	Open Circuit	1470		Vrms
Lout	Lamp Output Current		7.6	9.2	mArms
Lfreq	Lamp-Current Frequency		53	64	KHz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 3) = +2.5V	95	101	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 3) = +0V to +5.0V	0	100	%
ENoff	Enable Control, unit OFF (Pin 4)			0.8	Vdc
ENon	Enable Control, unit ON (PIN 4)		3.0		Vdc
Iin	Input Current Draw			1.0	Adc
Eff	Electrical Efficiency		87		%