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ACI-A037050-1887

PRODUCT DATA SHEET

I-LITE, 3.7 WATT LED DRIVER

(Common-cathode, Two channel 20-37V, 0-50mA)

07/17/13

GENERAL DESCRIPTION

The ACI-A037050-1887 is designed to drive 2 parallel channels of series connected LED's. Each series channel can provide an adjustable 0 to 50mA of output current into a maximum forward voltage of 37V.

Operating as a true constant current source the driver provides a complete integrated solution that operates from a nominal +8V to +18V (+12V nominal) source.

Simple to connect and operate, the driver solution is capable of providing precise control to support dimming applications of over 5000:1.

MECHANICAL / ENVIRONMENTAL

Weight = 7.2 grams

Altitude = 35,000 Ft maximum

Humidity < 95% non-condensing

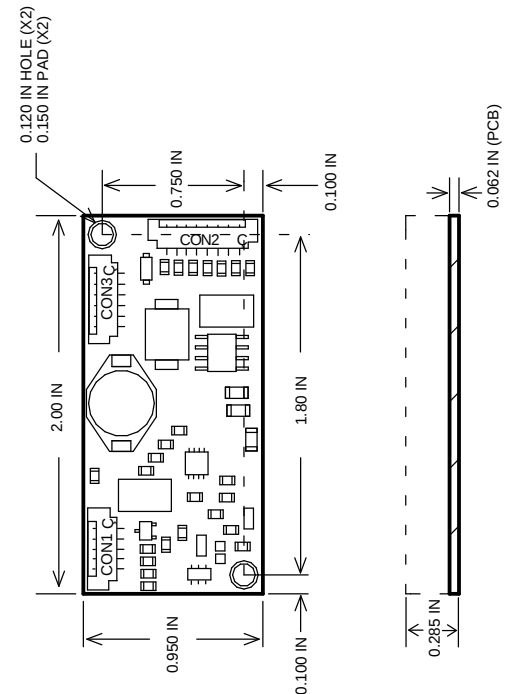
Size (L x W x H) = 2.0 IN x 0.95 IN x 0.285 IN

PCB thickness = 0.062 IN

Input power & control connector = CON1

LED output connector(s) = CON2, CON3

RoHS compliant



INPUT CONNECTOR
CON1
MOLEX 53261-0571

PIN # FUNCTION

1	+VIN(PWR)
2	GND(PWR)
3	ENABLE (IN)
4	INTENSITY CNTL (IN)
5	+3.3V REF (OUT)

OUTPUT CONNECTOR
CON2
MOLEX 53261-0871

PIN # FUNCTION

1	LED ANODE #1
2	LED ANODE #2
3	NC
4	NC
5	NC
6	NC
7	NC
8	LED CATHODE (COMMON)

OUTPUT CONNECTOR
CON3
MOLEX 53261-0671

PIN # FUNCTION

1	LED CATHODE (COMMON)
2	LED CATHODE (COMMON)
3	LED CATHODE (COMMON)
4	LED CATHODE (COMMON)
5	LED CATHODE (COMMON)
6	LED CATHODE (COMMON)

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MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 20	Vdc
Vip	Voltage applied to any input pin (Referenced to ground)	-0.3 to 3.6	Vdc
Iop	Current sourced or sinked from any output control pin	+/- 10	madc
Pin	Input power (DC input voltage x DC input current)	5.3	Watts
Top	Operating temperature (Still air ambient around inverter)	-20 to +85	Deg-C
Tstg	Storage Temperature	-40 to +105	Deg-C

* Maximum ratings are those values beyond which damage to the LED driver may occur

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	8	18	Vdc
Vf	Series connected cumulative LED forward-drop voltage	20	37	Vdc
Icntl	LED intensity control voltage	0.25	3.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 36Vdc, Icntl = +3.0V, Enable = +3.0V

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
OCV	Open circuit voltage	No load	45	50	55	Vdc
Iout	Output current per channel		45	50	55	madc
Iadj	Nominal output current adjust range	Icntl (Pin 4) = +0.25V to +3.0V	0		50	madc
ENoff	Enable control, unit OFF	Enable (Pin 3)			0.4	Vdc
ENon	Enable control, unit ON	Enable (Pin 3)	1.8			Vdc
+3.3Vref	+3.3 volt output reference voltage	1k load to ground (Pin 5)	3.13	3.3	3.47	Vdc
Iin	Input current draw			0.385		Adc
Iind	Input current draw (Disabled)	Enable (Pin 3) = 0V		1.0		madc
Eff	Electrical Efficiency			85		%



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GRAPHS

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