

PRODUCT DATA SHEET

05/10/11

I-LITE, 10.8 WATT LED DRIVER

(Common-Anode, Six Channels)

GENERAL DESCRIPTION

The ACI-A036050-1981 is designed to drive up to 6 parallel channels of series connected LEDs. Each series channel can provide an adjustable 0 to 50mA of output current into a maximum forward voltage of 36V.

Operating as a true constant current source, the driver provides a complete integrated solution that operates from a nominal +12V source.

Simple to connect and operate, the driver solution is capable of providing precise control to support dimming applications of over 5,000 to 1.

This unit features enable and intensity control inputs.

MECHANICAL/ENVIRONMENTAL

Weight = 8.4 grams

Altitude = 35,000 ft max.

Humidity < 95% non-condensing

Size (L x W x H) = 2.0 IN x 0.95 IN x 0.530 IN

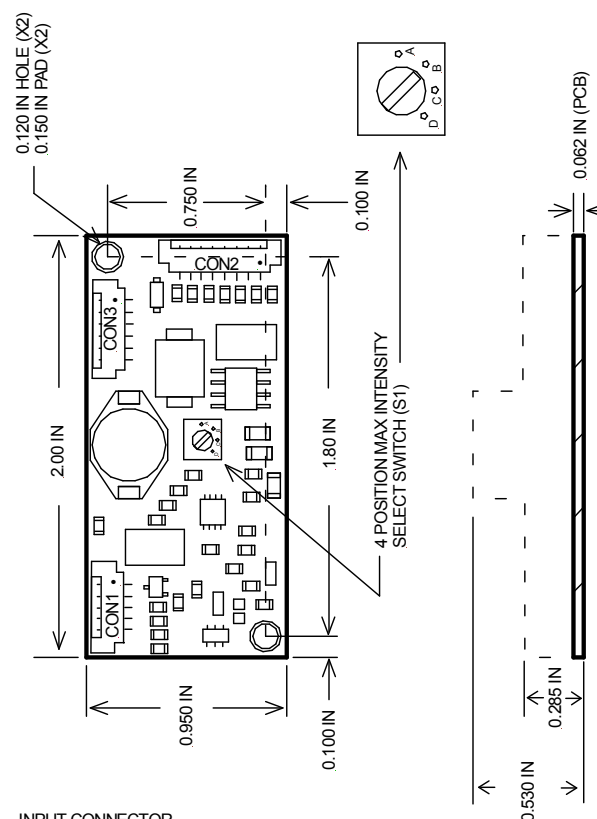
PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

LED Output Connectors = CON2 and 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 CATHODE #1
2	LED CATHODE #2
3	LED CATHODE #3
4	LED CATHODE #4
5	LED CATHODE #5
6	LED CATHODE #6
7	NC
8	LED ANODE (COMMON)

OUTPUT CONNECTOR
CON3
MOLEX 53261-0671

PIN # FUNCTION

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

PRODUCT DATA SHEET

05/10/11

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 18	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)	13.7	W
Top	Operating Temperature (Still air ambient around Driver)	-30 to +70	°C
Tstg	Storage Temperature	-40 to +105	°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)	10	15	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	18	34	Vdc
Icntl	LED Intensity Control Voltage	0.25	3.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 34V per channel, # of channels = 6, Icntl = +3.0V, Enable = +3V, S1 = A, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	45	50	55	Vdc
Iout-a	Output Current per Channel, Setting A	Switch S1 = A	47.5	50	52.5	mADC
Iout-b	Output Current per Channel, Setting B	Switch S1 = B	**	**	**	mADC
Iout-c	Output Current per Channel, Setting C	Switch S1 = C	**	**	**	mADC
Iout-d	Output Current per Channel, Setting D	Switch S1 = D	**	**	**	mADC
ICNTL	Nominal Output Current per Channel Adjustable Range	ICNTL (Pin 4) = +0.25V to +3.0V	0		50	mADC
ENoff	Enable Control, Unit Off	Enable (Pin 3)			0.5	Vdc
ENon	Enable Control, Unit ON	Enable (Pin 3)	2.0			Vdc
+3.3Vref	+3.3V Output Reference Voltage	1K Ohm Load to Ground (Pin 5)	3.13	3.3	3.47	Vdc
Iin	Input Current Draw			0.95		
Iind	Input Current Draw (Disabled)	Enable (Pin 3) = 0V		0.001	0.06	Adc
Eff	Electrical Efficiency			90		%

**Switch positions B, C and D have been reserved for future use.

