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ACI-A022060-2849

PRODUCT DATA SHEET

05/19/17

I-LITE, 4.0 WATT LED DRIVER

(Common Anode, Three Channels)

GENERAL DESCRIPTION

The ACI-A022060-2849 is designed to drive up to 3 parallel channels of series connected LEDs with a maximum forward voltage of 22V.

The current per channel is determined by the number of channels used, as shown in Table 1 on Page 3.

Operating as a true constant current source, the driver provides a complete integrated solution that operates over an input voltage range from 10.8 to +15VDC.

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 = 7.2 grams

Altitude = 35,000 ft max.

Humidity < 95% non-condensing

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

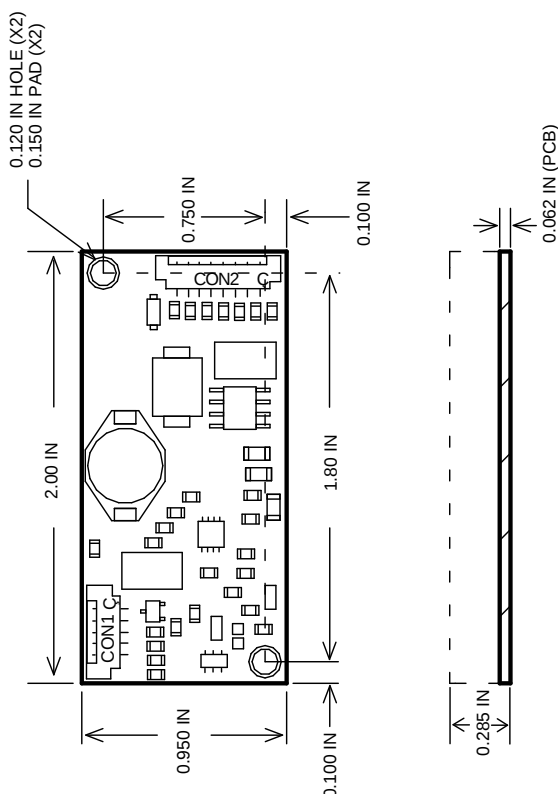
PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

LED Output Connector = CON2

RoHS Compliant



INPUT CONNECTOR

CON1

MOLEX 53261-0571

PIN # FUNCTION

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

OUTPUT CONNECTOR

CON2

MOLEX 53261-0871

PIN # FUNCTION

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

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 5.7	Vdc
Iop	Current sourced or sinked from any Output Control Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	5.1	W
Top	Operating Temperature (Still air ambient around Driver)	-30 to +85	°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)	10.8	15	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	Vin+1	22	Vdc
Icntl	LED Intensity Control Voltage	0.5	4.5	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 22V per channel, # of channels = 3, Icntl = +0.5V, Enable = +5V, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	31	33	35	Vdc
Iout	Output Current per Channel		57	60	63	mADC
ICNTL	Nominal Output Current per Channel Adjustable Range	ICNTL (Pin 4) = +0.5V to +4.5V	0		60	mADC
ENoff	Enable Control, Unit Off	Enable (Pin 3)			0.5	Vdc
ENon	Enable Control, Unit ON	Enable (Pin 3)	2.0			Vdc
+5Vref	+5V Output Reference Voltage	1K Ohm Load to Ground (Pin 5)	4.75	5.0	5.25	Vdc
Iin	Input Current Draw			0.37		Adc
Iind	Input Current Draw (Disabled)	Enable (Pin 3) = 0V		0.001	0.06	Adc
Eff	Electrical Efficiency			90		%

Number of Channels Connected	1	2	3
Current per Channel (mA)	180	90	60

TABLE1. – Current per Channel, based on the number of channels connected.

BRIGHTNESS CURVE

