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ACI-2022B

PRODUCT DATA SHEET

08/01/12

I-LITE, 9.0 WATT LED DRIVER

(Common Anode, 45V, 25mA per Channel, Eight Channels¹)

GENERAL DESCRIPTION

The ACI-2022B LED Driver is designed to drive up to 8 parallel channels of series connected LEDs. Each series channel can provide an adjustable 0 to 25mA of output current into a maximum forward voltage of 45V.

Operating as a true constant current source, the driver provides a complete integrated solution that operates from a nominal +10 to +17 VDC 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

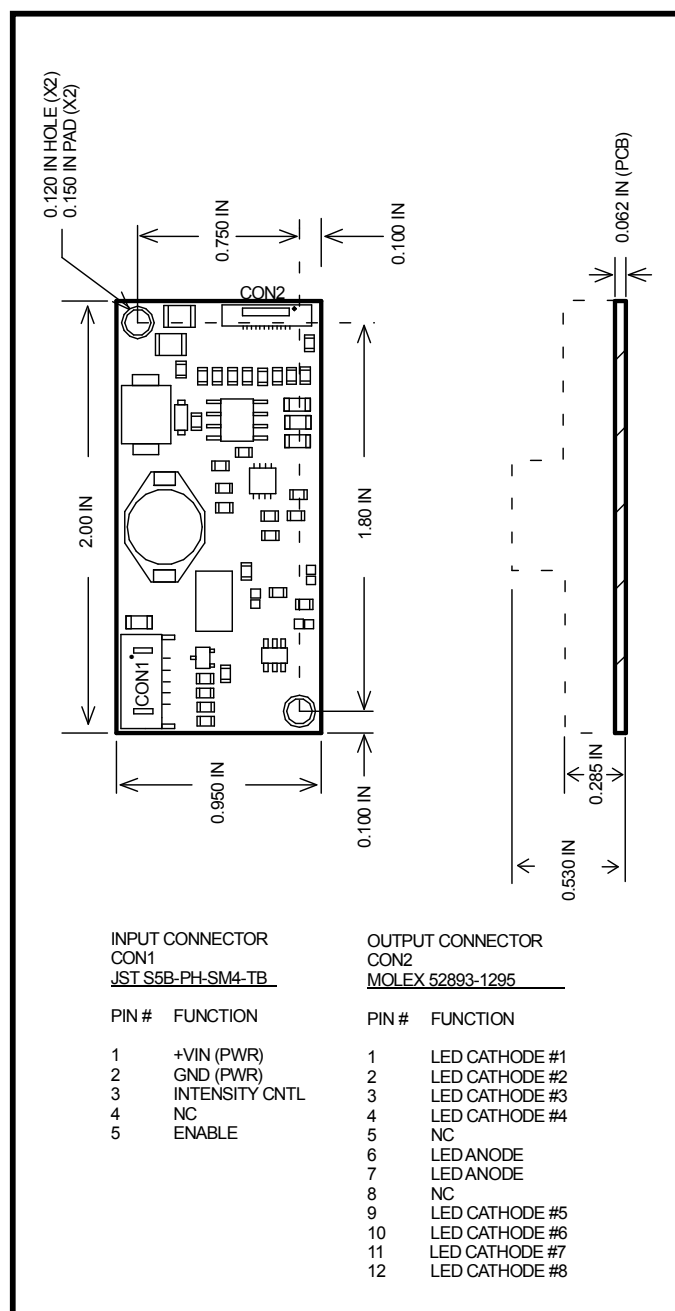
PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

LED Output Connector = CON2

RoHS Compliant



¹ When using less than the total number of channels available, refer to I-Lite Application Note.

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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)	-0.7 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)	11.5	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	17	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	18	45	Vdc
Icntl	LED Intensity Control Voltage	0.5	4.5	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 45V per channel, # of channels = 8, Icntl = +0.5V, Enable = +5V, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	54	60	66	Vdc
Iout	Output Current per Channel		23.7	25	26.3	mADC
Iadj	Nominal Output Current per Channel Adjustable Range	ICNTL (Pin 3) = +4.5V to +0.5V	0		25	mADC
ENoff	Enable Control, Unit Off	Enable (Pin 5)			0.5	Vdc
ENon	Enable Control, Unit ON	Enable (Pin 5)	2.0			Vdc
Iin	Input Current Draw			0.83		
Iind	Input Current Draw (Disabled)	Enable (Pin 5) = 0V		0.001	0.06	Adc
Eff	Electrical Efficiency			90		%
Sdelay	Start up Delay**			3.0		s

**LED Driver includes a 3 second time delay at start-up, in order to allow customer's current limited power supply to charge input and output caps, before turning on LEDs.

A Zener diode has also been added to circuit so that the boost regulator only turns on when Vin > 7.0V.

