

I-LITE, 4.8 WATT LED DRIVER

(Single Channel, 80V, 0-60mA)

GENERAL DESCRIPTION

The ACI-A080060-2178 is designed to drive a single channel of series connected LEDs with an adjustable output current from 0 to 60mA into a forward voltage up to 80V.

Operating as a true constant current source, the driver provides a complete integrated solution that operates from a +10V to +28V DC 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 = 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

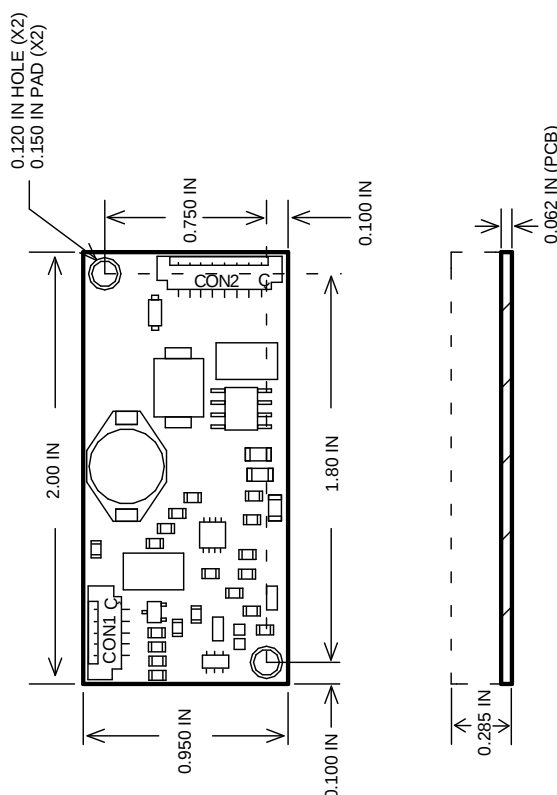
PCB thickness = 0.062 IN

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
2	NC
3	NC
4	NC
5	NC
6	NC
7	NC
8	LED ANODE

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 30	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)	6.4	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	28	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	35	80	Vdc
Icctl	LED Intensity Control Voltage	0.5	4.5	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 80, Icctl = +4.5V, Enable = +5V, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	82	85	88	Vdc
Iout	Output Current		54	60	66	mADC
ICNTL	Nominal Output Current Adjustable Range	ICNTL (Pin 4) <= +0.5V			0	mADC
		ICNTL (Pin 4) >= +4.5V		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	Vin (Pin 1) = +12V		0.44		Adc
Iin	Input Current Draw	Vin (Pin 1) = +24V		0.22		Adc
Iind	Input Current Draw (Disabled)	Enable (Pin 3) = 0V		0.001	0.06	Adc
Eff	Electrical Efficiency			90		%

LED Intensity vs Icntrl

