



HIGH POWER CW OR PULSED LASER DIODE DRIVER

- Output Current 30 Amps CW or 120 Amps Pulsed
- Ideal for High Power Laser Diodes
- Compliance voltage up to 140 VDC
- Wide Pulse Width to 1.0 ms
- Built-in Pulse Generator
- Transmission Line Construction



DESCRIPTION:

The **Model 779C Series** laser diode drivers are designed to power high current laser diodes for applications such as laser pumping and illumination. A pulse generator with adjustable amplitude, width, PRF and current limiting is included. A CW enable and opto-isolated pulse input also provide for remote control. The 779C Series provides negative current for grounded anode emitters using a closed-loop current source.

SPECIFICATIONS:

Input

Voltage	+11 to +16 VDC at 30 mA typical -5 to -150 VDC for laser drive
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Output

Current	1 to 30 Amps CW 1 to 120 Amps peak pulsed
Risetime	$4 \pm 1 \mu\text{s}$ at 120 Amps peak
Pulse Flatness	$\pm 1\%$ at 120 Amps peak
Compliance V	1 to 140 VDC, depending on laser drive input supply voltage
Monitor	50 mV/A, 6 VDC max into $\geq 10 \text{ k}\Omega$ impedance
Protection	Fast reverse polarity diode Current limit External pulsewidth limit Thermal shutdown

Internal Controls

Current	1 to 30/120 Amps min., trimpot
Current Limit	10 to 30/120 Amps min., trimpot
Pulsewidth	100 μs to 1.0 ms min., trimpot.
PRF	10 Hz to 100 Hz min., trimpot (add -A to part number) or 100 Hz to 1 kHz min., trimpot (add -B to part number)

External Controls

Current	20 A/V control input, current limit will limit maximum output current
Enable/PW/PRF	Opto-Isolated input at 10 mA. Enable for CW mode and PW/PRF control for pulse mode. (Internal PW adjust will limit maximum PW in external pulse mode.)

Temperature

0° to 50°C (derated)

Connections

Current Control	BNC
Pulse Enable	BNC
Output	Low inductance flat output cable
Current Monitor	BNC
Power	Terminal block

Size

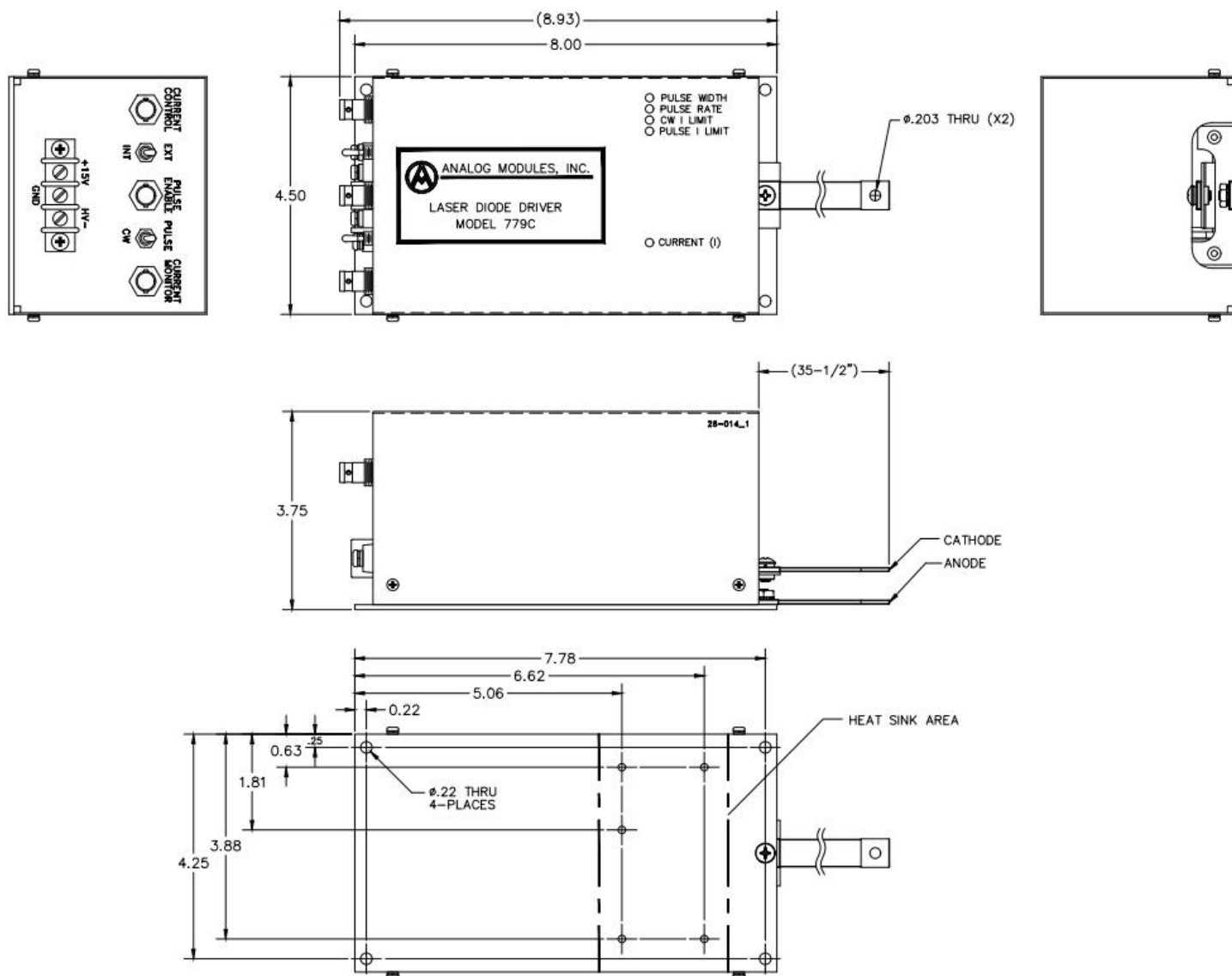
8.00" x 4.50" x 3.75"

Specifications subject to change without notice.

APPLICATIONS: CW and Pulsed High Current Laser Diode Current Source

		MODEL NUMBER
		OUTPUT CURRENT
HIGH POWER INPUT VOLTAGE	-5 to -150 VDC	1 to 30 Amps CW or 1 to 120 Amps peak pulsed
INPUT VOLTAGE	+11 to +16 VDC	779C-1-A

Typical Part Number: 779C-1-A = Output Current: 1 to 30 Amps CW or 1 to 120 Amps peak pulsed
 Compliance Voltage: 1 to 140 VDC
 Current Control: Trimpot or external control voltage
 Input Connector: BNC for CW enable or external PW/PRF control
 Current Monitor Output: 50 mV/A, 6 VDC max.
 Input Voltage: +11 to +16 VDC at 30 mA and -5 to -150 VDC for laser drive
 Internal PRF Range: 10 Hz to 100 Hz min., via trimpot



Dimensions are in inches.