



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 779B 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 779B 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

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 bound flat conductor output cable

Current Monitor BNC

Power Terminal block

Size

8.00" x 4.50" x 3.75"

Specifications subject to change without notice.



APPLICATIONS:

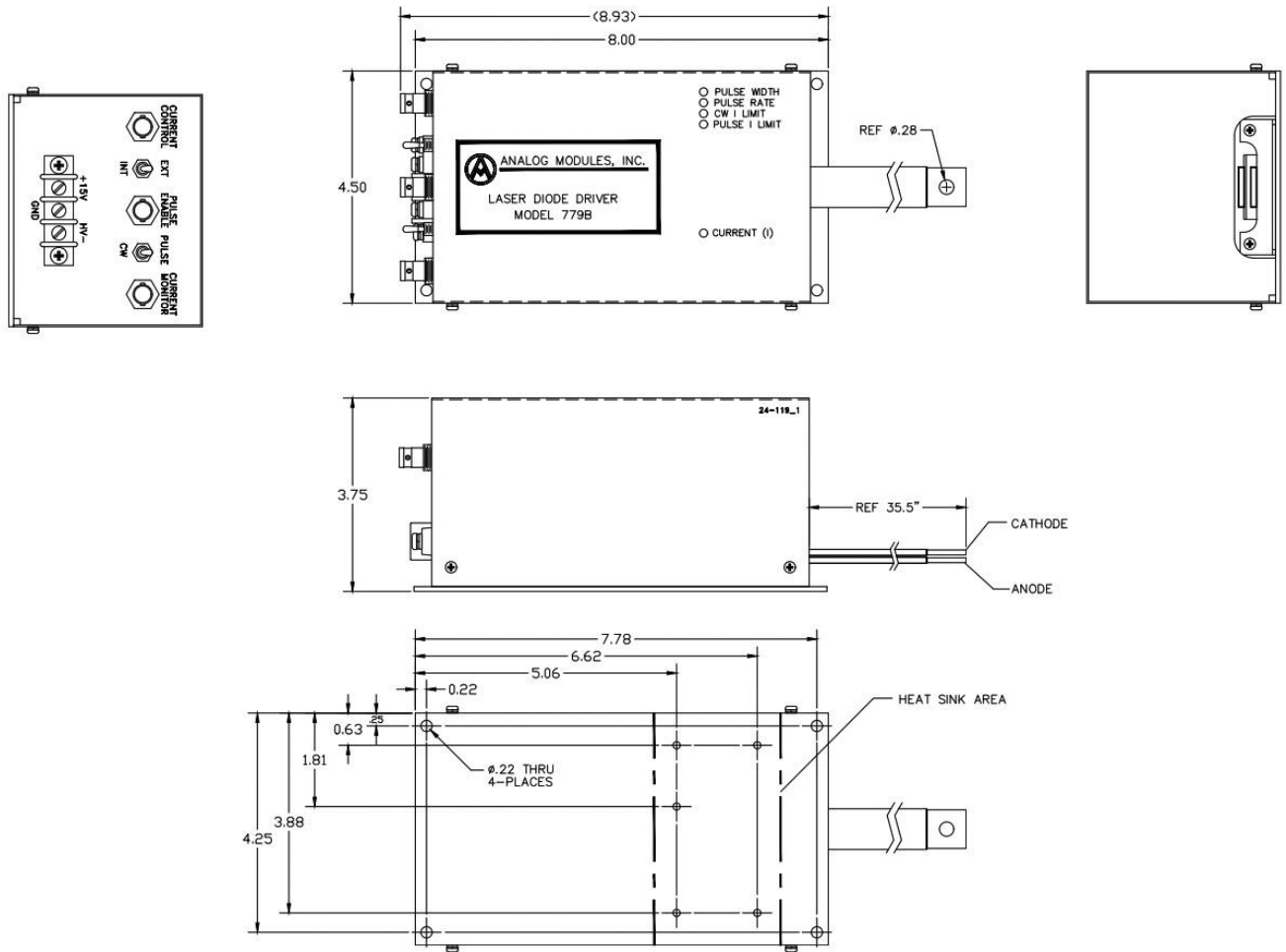
CW and Pulsed High Current Laser Diode Current Source

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	779B-1

Typical Part Number: 779B-1-B = 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
 PRF Range: 100 Hz to 1 kHz min., via trimpot



Dimensions are in inches.