



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 140VDC
- WIDE PULSEWIDTH TO 1.0mS
- BUILT-IN PULSE GENERATOR
- TRANSMISSION LINE CONSTRUCTION



DESCRIPTION:

The **779A 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 779A Series provides negative current for grounded anode emitters using a closed-loop current source.

SPECIFICATIONS:

Input

Voltage +11V to +16VDC at 30mA typical
-5V to -150VDC 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 1V to 140VDC, depending on laser drive
input supply voltage
Monitor 50mV/A, 6VDC 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 1.0ms min., trimpot.
PRF 10Hz to 100Hz min., trimpot (add -A to part number) or
100Hz to 1kHz min., trimpot (add -B to part number)

External Controls

Current 20A/V control input, current limit will limit maximum output current
Enable/PW/PRF Opto-Isolated input at 10mA. 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 connector with 1m 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 -150VDC	1 to 30 Amps CW or 1 to 120 Amps peak pulsed
INPUT VOLTAGE	+11 to +16VDC	779A-1

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

