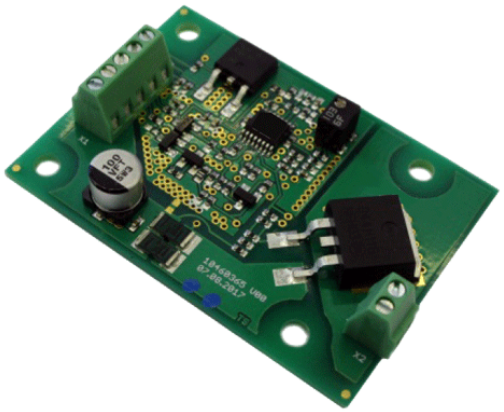
LDP-2023

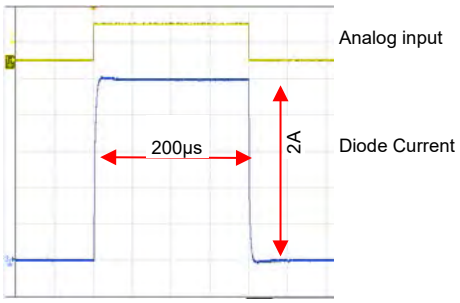
Low Power CW/pulsed Laser Driver

Features
Drives arbitrary current waveforms into laser diodes
CW, pulsed, modulated or mixed curves
Short rise and fall time, no overshot, no ripple
Set-point adjustment: analog input and potentiometer
Digital enable / trigger input



Specification

Diode current	0 mA ... 2000 mA
Diode voltage	max 23 V
Power dissipation	3.8 W max (no heatsink)
Power dissipation	15.6 W max (heatsink required)
Supply voltage	6.0 V … 24.0 V, max. 26 V
Supply voltage min	diode voltage + 1 V
Supply current	2.05 A max
Rise time	< 3.5 µs
Fall time	< 3.5 µs
Frequency	50 kHz max (square wave)
Frequency	165 kHz max (sine wave, -3dB)
Accuracy	± 1 %
Linearity	± 1 %
Temperature stability	±150ppm / °C
Ripple	no ripple



Inputs

Diode current set point	0 V ... 10 V (impedance: 2 kΩ)
Enable	TTL - low active (impedance: 1 kΩ)

Output

Diode current	Terminal

General specifications

Ambient temperature	0 ... +45 °C
Dimensions	52 x 37 x 11 mm, with heat sink 105 x 50 x 39 mm
Weight	12 g, with heat sink 162 g

Description
Low power driver LDP-2023 is a linear current source with excellent properties for driving low power laser diodes. Current waveforms can be CW, pulsed, modulated or a combination with frequencies up to 50 kHz (square wave) and currents up to 2 A. An analog modulation input and a digital enable / trigger input can generate fast and clean pulses. An analog input and a potentiometer control the current set point. Both values are added and build the effective current set point. LDP-2023 is small and compact and can be operated without heatsink (P_{DISS} < 3.8W). A heatsink is required for P_{DISS} > 3.8W.

Technical subjects to change without notice.

Type	Description
LDP-2023	Current Driver
LDP-20-HS	Heatsink

Warning!
Risk of exposure of hazardous laser radiation
in combination with laser light emitting devices!

ROITHNER LASERTECHNIK GmbH
Wiedner Hauptstraße 76, 1040 Vienna, Austria
Tel. +43 1 586 52 43 -0, Fax. +43 1 586 52 43 -44
www.roithner-laser.com office@roithner-laser.com