# LDP-5023

# 5 A CW/pulsed Laser Diode 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 ... 5000 mA

Diode voltage max 23 V

Power dissipation 5 W max (no heatsink)
Power dissipation 25 W max (heatsink required)
Supply voltage 7 V ... 24.0 V, max. 25 V
Supply voltage min diode voltage + 1 V

 $\begin{array}{lll} \text{Supply current} & 5.1 \text{ A max} \\ \text{Rise time} & < 3.5 \, \mu\text{s} \\ \text{Fall time} & < 3.5 \, \mu\text{s} \end{array}$ 

Frequency 50 kHz max (square wave) Frequency 165 kHz max (sine wave, -3dB)

 $\begin{array}{lll} \mbox{Accuracy} & \pm \ 1 \ \% \\ \mbox{Linearity} & \pm \ 1 \ \% \\ \end{array}$ 

Temperature stability ±150ppm / °C Ripple no ripple

## Inputs

Diode current set point  $0 \text{ V} \dots 10 \text{ V}$  (impedance:  $2 \text{ k}\Omega$ ) Enable TTL - low active (impedance:  $1 \text{ k}\Omega$ )

#### Output

Diode current Terminal

## General specifications

Ambient temperature 0 ... +45 °C

Dimensions 75 x 50 x 24 mm, with heat sink 75 x 50 x 35 mm

Weight 54 g, with heat sink 110 g

## Description

Low power driver LDP-5023 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 5 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-5023 is small and compact and can be operated without heatsink ( $P_{DISS} < 5$  W). A temperature-controlled air fan cooler (heatsink) is available for  $P_{DISS}$  up to 25W. An integrated overtemperature protection increases operating safety.

Technical subjects to change without notice.

Туре	Description
LDP 5023	Current Driver
LDP-50-HS	Heatsink



#### warning!

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



