

## Data Sheet

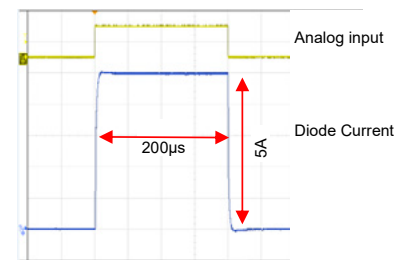
### Low Power Driver LPD 5-25

#### Features

Drives arbitrary current waveforms into laser diodes  
 CW, pulsed, modulated or mixed curves  
 Short rise and fall time, no overshoot, 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
Supply current	5.1 A max
Rise time	< 3.5 $\mu$ s
Fall time	< 3.5 $\mu$ s
Frequency	50 kHz max (square wave)
Frequency	165 kHz max (sine wave, -3dB)
Accuracy	$\pm 1$ %
Linearity	$\pm 1$ %
Temperature stability	$\pm 150$ ppm / $^{\circ}$ C
Ripple	no ripple



#### Inputs

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

#### Output

Diode current	Terminal
---------------	----------

#### General specifications

Ambient temperature	0 ... +45 $^{\circ}$ 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 LPD 5-25 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. LPD 5-25 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.

Type	Description	Ordering code
LPD 5-25	Current Source	10100930
LPD 5-HSK	Heatsink Kit	10100932



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

Document: 10100930	Revision: 01	Date: 18.12.2023
--------------------	--------------	------------------