

Data Sheet

Low Power Driver LPD 5-50

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 47 V
Power dissipation	5 W max (no heatsink)
Power dissipation	25 W max (heatsink required)
Supply voltage	7 V ... 48.0 V, max. 50 V
Supply voltage min	diode voltage + 1 V
Supply current	5.1 A max
Rise time	< 3.5 μ s
Fall time	< 3.5 μ s
Frequency	50 kHz max (square wave)
Frequency	165 kHz max (sine wave, -3dB)
Accuracy	\pm 1 %
Linearity	\pm 1 %
Temperature stability	\pm 150ppm / °C
Ripple	no ripple

Inputs

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

Output

Diode current	Terminal
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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 LPD 5-50 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 5-50 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 5-50	Current Source	10100931
LPD 5-HSK	Heatsink Kit	10100932



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

Document: 10100931	Revision: 01	Date: 18.12.2023
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