

Data Sheet

Fast Modulator VFM 20-50

Features

Drives arbitrary current waveforms into laser diodes
 CW, pulsed, modulated or mixed curves
 Very short rise and fall time
 Enhanced optical performance
 Two analog inputs plus BIAS current
 Trigger input
 Small dimensions, low weight



Specification

Diode current CW	0 ... 20 A
Diode current pulsed	0 ... 40 A
Diode voltage	0 ... 49 V
Output power	980 W max
Power dissipation	30 W max allowed
Supply voltage	1 V ... 49 V
Supply current	20 A max
Supply voltage*	3 V ... 6 V (* for internal electronics)
Rise time	55 ns
Fall time	55 ns
Frequency (set point 1)	9 MHz max
Frequency (set point 2)	100 kHz max

Inputs

Diode current set point 1	0 ... 500 mV (50 Ohm input)
Diode current set point 2	0 ... 5 V (high impedance)
Trigger, Enable, Reset	TTL

Outputs

Diode current monitor	0 ... 110 mV (into 50 Ohm)
Temperature	0 ... 4 V for 0 ... 80°C
Ready	TTL

General specifications

Ambient temperature	0 ... +45 °C
Cooling	Required
Dimensions	95 x 61 x 20 mm
Weight	240 g
Ordering Code	10100414

Description

The fast diode current modulator VFM 20-25 is a linear modulator with improved properties for driving arbitrary current waveforms or fast pulses into laser diodes. Current waveforms can be CW, pulsed, modulated or mixed with frequencies up to 9 MHz and currents up to 20 A for CW and 40 A for pulsed waveforms. The modulator is small and compact and it is designed for mounting with low inductance directly at laser diodes or for integrating in laser diode modules. It has two analogue inputs for the current set point: a high frequency input (50 Ohm input impedance) with a bandwidth of 9 MHz and a low frequency input with a bandwidth of 100 KHz. Additionally there is a 10 turns potentiometer for generating a CW-current (bias current). All set points are added and build the effective current set point. A TTL-Trigger input generates fast and clean pulses at the high frequency set point 1. Technical subjects to change without notice.



Warning!

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