

10100371

VFM 20-25 Fast Diode Current Modulator

Features

Drives arbitrary current waveforms into high voltage,

high power laser diodes

CW, pulsed, modulated or mixed

Short rise and fall time Frequency up to 20 MHz Enhanced optical performance

Two analog inputs Trigger input Small dimensions



Specification

Diode current 0 ... 20 A

Diode current pulsed 0 ... 40 A (short pulses)

Diode voltage 0 ... 24 V Output power 480 W max

Power dissipation 30 W max allowed

Supply voltage 1 V ... 25 V
Supply current 20 A max
Supply voltage* 3 V ... 6 V
Rise time 28 ns
Fall time 32 ns
Frequency 20 MHz max

Inputs

Diode current set point 1 0 ... 500 mV (50 Ohm input)
Diode current set point 2 0 ... 5 V (high impedance)

Trigger TTL Enable TTL Reset TTL

Outputs

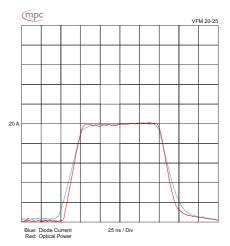
Diode current monitor 0 ... 110 mV (into 50 Ohm) Temperature 0 ... 4 V for 0 ... 80°C

Ready TTL

General specifications

Ambient temperature 0 ... +45 °C
Cooling Required
Dimensions 95 x 61 x 20 mm

Weight 250 g Ordering Code 10100371



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 20 MHz and currents up to 20 A for CW and 40 A for pulsed waveforms.

The VFM 20-25 is small and compact and it is designed for mounting it with low inductance directly at laser diodes or for integrating it in laser diode modules.

The VFM 20-25 has two analogue inputs for the current setpoint, a high frequency input

(50 Ohm input impedance) with a bandwidth of 20 MHz and a low frequency input with a bandwidth of 100 KHz. Both inputs cover the full current range.

Additionally there is a TTL-Trigger input which acts at the high frequency input for generating fast and clean pulses.

For detailed information see operating manual or visit our website.

^{*} for internal electronics