

# 10100373

# VFM 40-25 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 ... 40 A

Diode current pulsed 0 ... 80 A (short pulses)

Diode voltage 0 ... 24 V Output power 960 W max

Power dissipation 60 W max allowed

Supply voltage 1 V ... 25 V
Supply current 40 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** 

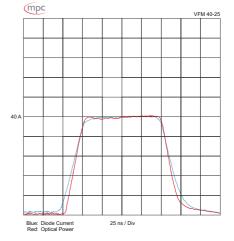
Diode current monitor 0 ... 110 mV (into 50 Ohm) Temperature 0 ... 4 V for 0 ... 80°C

Ready TTL

# **General specifications**

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

Weight 255 g Ordering Code 10100373



#### **Description**

The fast diode current modulator VFM 40-25 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 40 A for CW and 80 A for pulsed waveforms.

The VFM 40-25 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 40-25 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.

<sup>\*</sup> for internal electronics