

### Features

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



### Specification

|                         |                  |
|-------------------------|------------------|
| Diode current CW        | 0 ... 1,5 A      |
| Diode current pulsed    | 0 ... 3 A        |
| Diode voltage           | 0 ... 23 V       |
| Output power            | 34.5 W max       |
| Power dissipation       | 30 W max allowed |
| Supply voltage          | 1 V ... 24 V     |
| Supply current          | 1,5 A max        |
| Supply voltage*         | 3 V ... 6 V      |
| Rise time               | 26 ns            |
| Fall time               | 34 ns            |
| Frequency (set point 1) | 16 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                   | TTL                         |
| Enable                    | TTL                         |
| Reset                     | TTL                         |

### Outputs

|                       |                           |
|-----------------------|---------------------------|
| Diode current monitor | 0 ... 83 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       | 10100828        |

\* for internal electronics

### Description

The fast diode current modulator VFM 1,5-25 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 16 MHz and currents up to 1,5 A for CW and 3 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 it 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 16 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 input set point 1.

Technical subjects to change without notice.