

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
 Excellent dynamic performance
 Two analog inputs
 Small dimensions



Specification

Diode current 0 ... 100 A
 Diode current pulsed 0 ... 200 A (short pulses)
 Diode voltage 0 ... 24 V
 Output power 2400 W max
 Power dissipation 150 W max allowed
 Supply voltage 1 V ... 25 V
 Supply current 100 A max
 Supply voltage* 3 V ... 6 V
 Rise time 16 ns
 Fall time 9 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)
 Enable TTL
 Reset TTL

Outputs

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

General specifications

Ambient temperature 0 ... +45 °C
 Cooling Required
 Dimensions 95 x 61 x 20 mm
 Weight 275 g
 Ordering Code 10100342

* for internal electronics

Description

The fast diode current modulator FM 100-25 is a linear modulator for driving arbitrary current waveforms into high voltage, high power laser diodes.

Current waveforms can be CW, pulsed, modulated or mixed with frequencies up to 20 MHz and currents up to 100 A for CW and 200 A for pulsed waveforms.

The FM 100-25 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 FM 100-25 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 10 turns potentiometer for generating a CW-current (bias current).

All set points are added and build the effective current set point.

For detailed information see operating manual or visit our website.

