

Features

- Drives arbitrary current waveforms into 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 ... 4.5 V
Output power	450 W max
Power dissipation	150 W max allowed
Supply voltage	3 V ... 6 V
Supply current	100 A max
Rise time	16 ns
Fall time	9 ns
Frequency	20 MHz max

Inputs

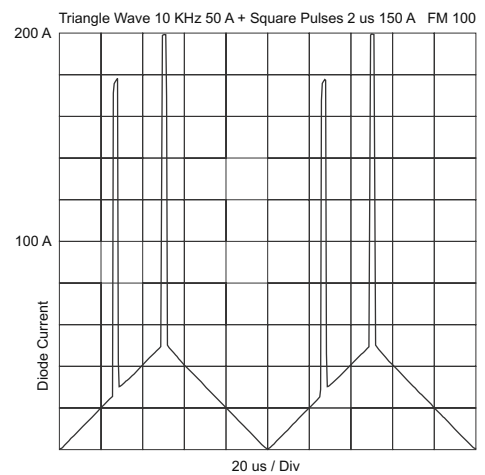
Diode current set point 1	0 ... 500 mV (50 Ohm input)
Diode current set point 2	0 ... 5 V (high impedance)
Enable	TTL
Reset	TTL

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	10100242



Description

The fast diode current modulator FM 100 is a linear modulator which is well suited for driving arbitrary current waveforms into 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 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 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.