

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 ... 20 A
Diode current pulsed	0 ... 40 A (short pulses)
Diode voltage	0 ... 4.5 V
Output power	90 W max
Power dissipation	30 W max allowed
Supply voltage	3 V ... 6 V
Supply current	20 A max
Rise time	16 ns
Fall time	9 ns
Frequency	20 MHz max

Inputs

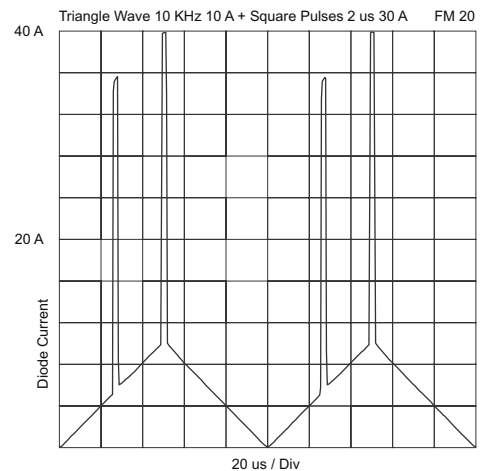
Diode current set point 1	0 ... 500 mV (50 Ohm input)
Diode current set point 2	0 ... 5 V (high impedance)
Enable	TTL
Reset	TTL

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	250 g
Ordering Code	10100240



Description

The fast diode current modulator FM 20 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 20 A for CW and 40 A for pulsed waveforms. The FM 20 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 20 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.