

## Data Sheet

### Fast Modulator MSM 120-25

#### Features

Drives arbitrary current waveforms into laser diodes  
 CW, pulsed, modulated or mixed curves  
 Short rise and fall time  
 Two analog inputs plus BIAS current  
 Small dimensions, low weight



#### Specification

Diode current CW	0 ... 120 A
Diode current pulsed	0 ... 240 A
Diode voltage	0 ... 23 V
Output power	2880 W max
Power dissipation	150 W max allowed
Supply voltage	1 V ... 24 V
Supply current	120 A max
Supply voltage*	3 V ... 6 V
Rise time	5 $\mu$ s
Fall time	7 $\mu$ s
Frequency (set point 1)	100 kHz 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)
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	240 g
Ordering Code	10100453

\* for internal electronics

#### Description

The fast diode current modulator MSM 120-25 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 100 kHz and currents up to 120 A for CW and 240 A for pulsed waveforms. The modulator is small and compact and it is designed for mounting with low inductance at laser diodes or for integrating 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 100 kHz 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.

Technical subjects to change without notice.

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