



- Output Currents up to 1A
- Dual-Mode Operation
  - Constant Current for simple lasers
  - Constant power for lasers with feedback photodiodes
- Versions for all Integrated Laser / photodiodes
  - Grounded case (common) connection
- On-board Protection and Shutdown:
  - Over current
  - Over temperature
- Soft-start Enable
- Reference Voltage and Temperature Outputs
- 3.3V to 5V operation
- -40 to +85°C Operating Temperature



### Description

The MOT6550 series is designed to drive laser diodes with drive currents up to 1A. In constant current mode the laser current is precisely regulated over voltage and temperature. In constant power mode the feedback from a photodiode is monitored and the output current is varied to maintain constant output from the laser.

Family members are available to allow all laser assembly configurations to be supported with the common (case) connection grounded. The laser output current may be monitored by means of a voltage output from the module.

The module's internal temperature and the laser output current are constantly monitored and, if out of range, the module will shutdown the output and set a warning flag. A reset input is provided to clear this condition.

The output current/power may be set by applying a control voltage, either from a simple potentiometer or from the output of a DAC. Provision is also made to precisely set the zero output current.

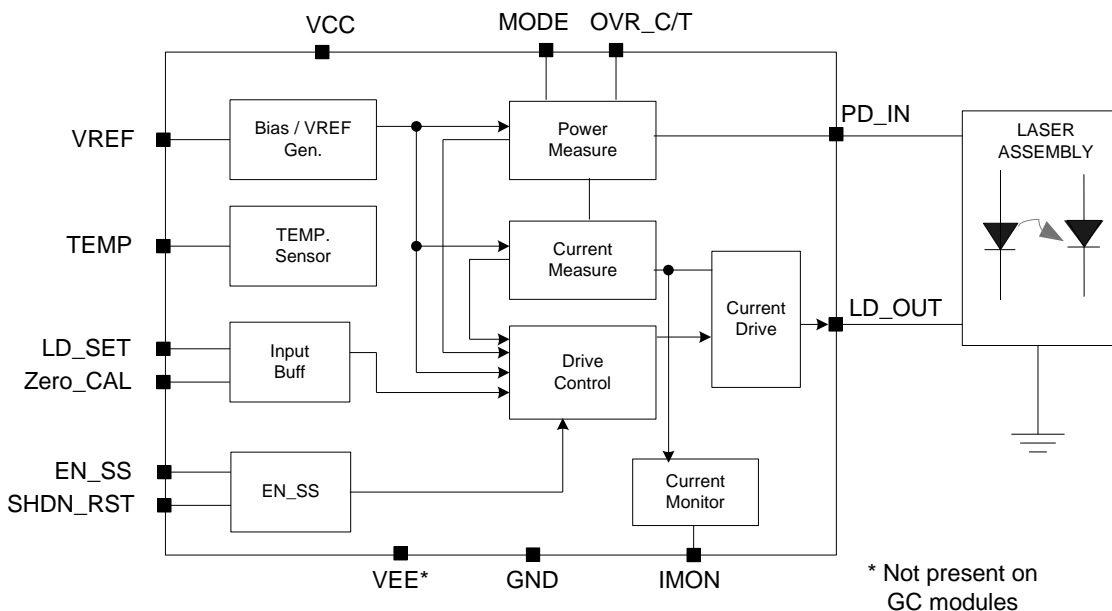
Internal circuitry provides a soft start function to ramp the output current up slowly on power up or after the module is enabled.

The MOT6550 series operates from 3.3V to 5V supplies and is characterized for operation over the -40 to +85°C temperature range. It is available in a 14-pin, 27.5mm x 20mm package.

The MOT600\_xxGC and MOT605\_xxGC OEM boards are available to allow quick and easy evaluation and verification of the MOT6550 series and your chosen laser diode. Please visit our website for complete specifications and additional information about the MOT6550 series and the MOT600\_xxGC MOT605\_XXGC boards.



Block Diagram



**Selection Table**

Output Current (max)	Configuration / Part Number			
	Grounded Anode	Common Anode	Grounded Cathode	Common Cathode
250mA	MOT6550GA-25	MOT6550CA-25	MOT6550GC-25	MOT6550CC-25
500mA	MOT6550GA-50	MOT6550CA-50	MOT6550GC-50	MOT6550CC-50
1A	MOT6550GA-100	MOT6550CA-100	MOT6550GC-100	MOT6550CC-100

Contact Information:

ModularOne Technology  
 5902 Wessex Court  
 Parker TX 75002

Phone: 214-566-3708  
 Email: [info@modularonetechnology.com](mailto:info@modularonetechnology.com)  
 Web: [www.modularonetechnology.com](http://www.modularonetechnology.com)