



OEM Seed Laser Diode Driver Assembly

- **OUTPUT CURRENT UP TO 2.0 AMP**
- **OUTPUT PULSEWIDTH 20ns TO CW**
- **FAST RISETIME OF <10ns**
- **COMPLIANCE VOLTAGE TO 2.0V**
- **+5VDC INPUT POWER**



DESCRIPTION:

The Model 760-57 is a compact 2.0A peak laser diode driver with proportional current control. The pulsewidth is variable from 20ns to CW and the output current transitions at a rate of >1A/5ns. The board will accept a 14-pin butterfly package and includes a TEC controller. The driver will accept a back facet monitor output and provide a digital laser fire indicator pulse. The laser diode (LOAD) is isolated from the power input terminals, so a non-isolated power supply is acceptable. A potentiometer adjustable trickle current up to 60mA is generated internally to keep the laser pre-biased. The driver is delivered as an OEM PCB assembly attached to a heatsink with all required mating cables.

SPECIFICATION:

PARAMETER	Min.	Typical	Max.	Units
INPUT				
Power	4.75	5.0	5.25	VDC
Current	-	-	3.5	A
Current Control (50 Ω Impedance)	0	-	1.25	V
OUTPUT				
Current	0.1	-	2.0	A
Compliance Voltage	-	2.0	3.0	V
Pulsewidth	20	-	CW	ns
Repetition Rate	Single Shot	-	10	MHz
Duty Cycle	0	-	100	%
Risetime (Optical) @ 2A	-	7	10	ns
Falltime (Optical) @ 2A	-	7	10	ns
TEC Current	0	-	3.0	A
TEC Voltage	0	-	4.2	V

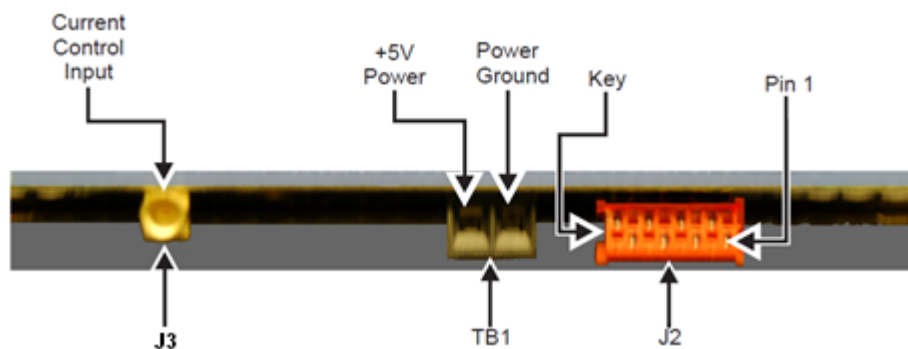
Specifications are subject to change without notice.



APPLICATIONS:

Seed Laser Diode Driver/Pump Laser Diode Driver for Pumping Fiber Lasers, LIDAR, Remote Sensing

PROTECTION:	Adjustable current limit
	Driver disabled when laser diode die temperature is outside of TEC set point by $\pm 1^{\circ}\text{C}$
CONNECTIONS:	
Power:	2 pin Terminal Block (<i>Molex 39257-002</i>)
Interface:	8 Pin AMP MicroMatch Connectors (<i>7-215460-8</i>)
Current Control:	MMCX Micro Coax Connector
TEMPERATURE:	
Operating:	0°C to +50°C
Storage:	-20°C to +70°C
SIZE:	3.5" x 2.75" x 1.3" Max (including heatsink)
THERMAL:	On-board TEC Controller will provide heating and cooling as necessary to maintain desired operating point. Thermistor and the TE cooler are in the laser diode package (not included). Customer may need to provide thermal mass and/or forced air for heatsinking under high dissipation conditions.



Electrical Signal Connections

8-pin Connector (J3)

**14-Pin Butterfly Package Interface
(Customer Supplied)**

Pin	Signal
1	ENABLE
2	GND
3	TEMP FAULT
4	GND
5	OVER CURRENT FAULT
6	GND
7	LASER FIRE
8	GND

Pin	Connection
1	TEC Cooler (+)
2	Thermistor
3	Back facet monitor anode (+)
4	Back facet monitor cathode (-)
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	Laser diode anode (+)
11	Laser diode cathode (-)
12	N/C
13	Case ground
14	TEC cooler (-)