



### HIGH CURRENT PULSED LASER DIODE DRIVER

- Output up to 118 A Pulsed
- $\leq 25 \mu\text{s}$  Risetime
- 100  $\mu\text{s}$  - 3.0 ms Pulses, 1 W MAX.
- +5 to +12 VDC Input Power
- Compact < 2.1" x 2.5" x 1.25"



### DESCRIPTION:

The Model 773-2 is a highly compact, low voltage DC input power converter/laser diode driver designed to supply pulsed high current for laser diode-stack loads. Pulsed output current is 118 A with  $\leq 25 \mu\text{s}$  risetime into diode-stacks of 2 to 5 V at an average power to the load of 1.0 W. The driver weighs 2.1 oz. in a compact package and is ideally suited for rangefinding applications. The unit does not require a heatsink and offers open circuit and short circuit protection. Please contact AMI to discuss your OEM requirements.

### SPECIFICATIONS:

#### Input

Voltage	+5 to +12 VDC
Current	< 575 mA (avg) @ 5V input, 1 W output
Inrush	< 2 A
Idle	< 100 mA @ 5 V input, enabled but not pulsing
Non-Charging	< 30 $\mu\text{A}$ (Enable in Low state)

#### Output

Voltage	2 to 5 V
Current	118 A pulsed
Pulse Energy	1.0 J max.
Polarity	Floating output; neither anode nor cathode can be grounded
Off-State Current	$\leq 100 \mu\text{A}$ @ 55°C
Risetime	$\leq 25 \mu\text{s}$
Avg. Power (load)	1.0 W
Pulsewidth	100 $\mu\text{s}$ – 3.0 ms

#### Regulation

Line	$\leq 2$ A (5-12 VDC in)
Efficiency	> 50% excluding idle current (load dependent)
Ripple Current	-14 A at 118 A

#### Cooling:

Natural convection (no heatsink required)

#### Protection

Open circuit  
Short circuit

#### Connections

Driver I/O:	8 pin Molex 53261-0871 Mate – Molex 51021-0800
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#### External Controls

Enable	High input (3.3 V CMOS) charges capacitor
Drive Pulse	High input (3.3 V CMOS) starts current to diode load
PS Ready	High output (3.3 V CMOS) when DDA capacitor has charged and driver is ready for laser firing
PS Inhibit	High input (3.3 V CMOS) inhibits power supply and driver functions

#### Size & Weight

2.1" x 2.5" x 1.25"; 2.1 oz

#### Temperature

-32°C to +55°C operating  
-45°C to +60°C storage

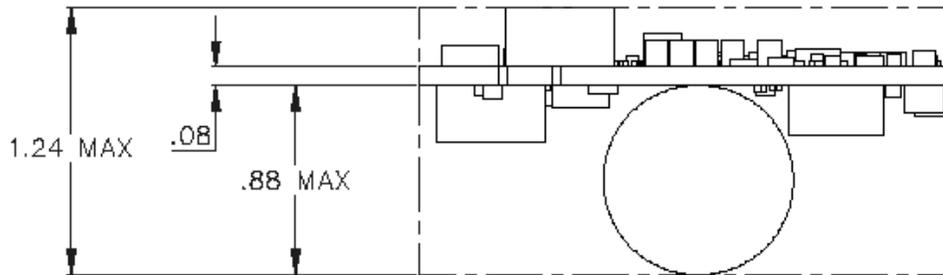
Specifications subject to change without notice.

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### APPLICATIONS:

*Pulsed High Current Laser Diode Current Source*

	MODEL NUMBER
	OUTPUT CURRENT
LOAD VOLTAGE	118 Amps peak pulsed
2 to 5 VDC	<b>773-2</b>



E4 (DIODE CATHODE),  
E3 (DIODE ANODE) OPPOSITE SIDE

