



## SOLID-STATE POCKELS CELL/SHUTTER DRIVER

- ADJUSTABLE PUSH-PULL OUTPUT TO 3.2kV
- 30ns TYPICAL RISE TIME
- RUGGED SOLID-STATE DESIGN
- SELF-CONTAINED HIGH VOLTAGE POWER SUPPLY
- COMPACT SURFACE MOUNT CONSTRUCTION



### DESCRIPTION:

The **Model 823B** Pockels Cell/Shutter Driver is designed for continuous pulsed applications. Solid-state MOSFET technology is used, giving excellent trigger noise immunity and a smooth output waveform. This technique eliminates common problems associated with krytron, avalanche, and transformer drivers. Amplitude is continuously variable by adjusting the internal high voltage power supply.

### SPECIFICATIONS:

<b>Trigger Input</b>	Opto-isolated, active high current of 2.5mA to 9.0mA, input impedance 2k $\Omega$	<b>Output</b>	Voltage	2kV to 3.2kV
Pulsewidth	$\geq 300$ ns to 25 $\mu$ s	Load	Tested with 23pF load, 66.7M $\Omega$	
Repetition Rate	Up to 30Hz	Risetime	30ns typical at 3.2kV, 25 $^{\circ}$ C	
<b>Power</b>	+12VDC $\pm$ 0.5V at 10mA to 20mA depending on PRF and output voltage	Recovery	8ms typical at 25 $^{\circ}$ C	
<b>Temperature</b>		Hold Time	> 1 $\mu$ s (at >90%)	
Operating	-40 $^{\circ}$ to +71 $^{\circ}$ C	T <sub>delay in-out</sub>	< 300nsec (typical)	
Storage	-40 $^{\circ}$ to +85 $^{\circ}$ C	T <sub>jitter</sub>	< 5nsec (typical)	
<b>Connections</b>		Voltage Control	Internal multi-turn trimpot	
Input	4 pin connector Molex 53261-0471	<b>MTBF</b>	> 800,000 hrs. per Bellcore SR-332 Ground Fixed, Controlled, 55 $^{\circ}$ C	
Output	12" flying leads	<b>Size</b>	2.59" x 1.32" x 0.60"	
		<b>Weight</b>	1.0 oz.	

Caution:  
Pockels Cell must float electrically.  
Mounting hardware must be Non-Conductive.  
Nylon hardware is provided.



Specifications subject to change without notice

### APPLICATIONS:

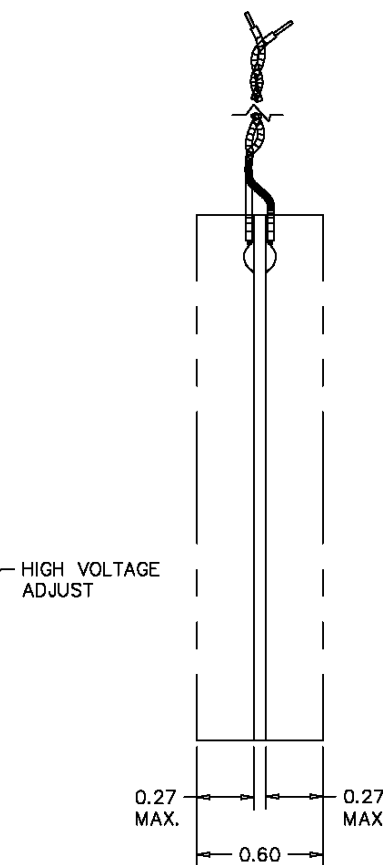
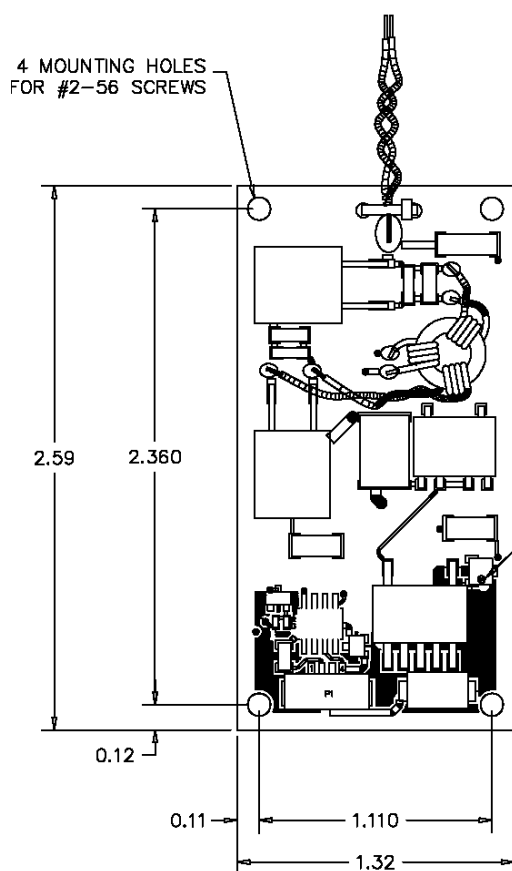
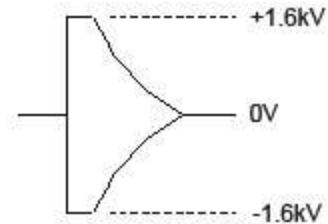
Driving E-O Q-Switches for Q-Switching Solid-State Lasers, High Voltage Pulser, E-O Shutter

		MODEL NUMBER
		OUTPUT SWING
		2kV to 3.2kV
INPUT VOLTAGE	+12V ± 0.5V	<b>823B</b>
TRIGGER		OPTO-ISOLATED

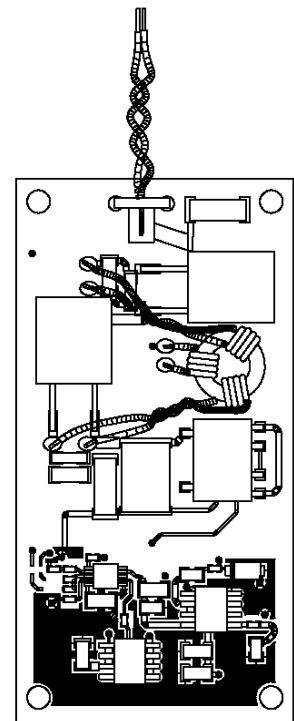
**Typical Part Number: 823B =** Input Voltage: +12V ± 0.5V  
 Trigger: Opto-isolated  
 Output Voltage: 2kV to 3.2kV  
 Voltage Control: Internal multi-turn trimpot

CONNECTION	SIGNAL
P1-1	INPUT VOLTAGE (+12VDC)
P1-2	TRIGGER
P1-3	GROUND
P1-4	TRIGGER RETURN

**TYPICAL OUTPUT PULSE**



TOLERANCES  
 .XX=±.02  
 .XXX=±.005



P7947\_3.DWG

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