



PROGRAMMABLE HIGH VOLTAGE POWER SUPPLY FOR PHOTODETECTOR BIASSING

- VERY LOW NOISE
- LOW COST
- SMALL SIZE
- SHIELDED METAL CASE
- HIGH RELIABILITY



DESCRIPTION:

The **521A Series** provides a fixed or variable high-voltage source for photodetector biasing or similar applications. The power converter uses techniques to minimize sharp switching transients, which can interfere with sensitive circuits. Output voltage may be programmed by external fixed or variable resistors or controlled by an external 0-5 volt source. To ensure low EMI levels the output is filtered, the transformer is magnetically enclosed, and the module is electrostatically shielded in a metal case.

SPECIFICATIONS:

Input

Voltage	+12 to +15VDC or +24 to +28VDC
Current	30 to 60mA typical
Temperature	-40° to +85°C
Connections	Pins and ground lug
Size	2.05" x 1.00" x 0.61"
Weight	≤ 1.5 oz. (42 grams)

Output

Voltage	+10V to +800V (± 5%) or -10V to -800V (± 5%)
Stability	0.3% typical at 25°C
Ripple	0.003% peak at V_{max} (typical) or 0.006% maximum
Voltage Control	The output voltage is linearly proportional to the 0 to +5V control input. For positive output units, +5V gives maximum output and 0V gives minimum output. For negative output units, +5V gives minimum negative output and 0V provides maximum negative output. A +5V internal reference is provided.

Specifications subject to change without notice.

All specifications valid at 25°C.



APPLICATIONS:

HV Bias Source for PIN and APD Detectors, Power Supply for Pulsed Emitters

MODEL NUMBER

		MAXIMUM OUTPUT VOLTAGE					
		+300 VDC	-300VDC	+600VDC	-600VDC	+800VDC	-800VDC
INPUT VOLTAGE	+12 to +15VDC	521A-1	521A-3	521A-5	521A-7	521A-9	521A-11
	+24 to +28VDC	521A-2	521A-4	521A-6	521A-8	521A-10	521A-12
OUTPUT	Current, 50%/100% V_{out}	1.6/0.7mA	1.6/0.7mA	1.0/0.2mA	1.0/0.2mA	750/150 μ A	750/150 μ A
	Impedance	12k	12k	50k	50k	>50k	>50k

Typical Part Number: **521A-4** = Input Voltage: +24 to +28VDC
 Output Voltage Range: -10 to -300VDC

Note: HV output pins must be coated externally for units with maximum output voltage magnitude > 300V.

