



PROGRAMMABLE HIGH VOLTAGE POWER SUPPLY FOR PHOTODETECTOR BIASING

- 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		Output	
Voltage	+12 to +15 VDC or +24 to +28 VDC	Voltage	+10 V to +800 V ($\pm 5\%$) or -10 V to -800 V ($\pm 5\%$)
Current	30 to 60 mA typical	Stability	0.3% typical at 25°C
Temperature	-40° to +85°C	Ripple	0.003% peak at V_{max} (typical) or 0.006% maximum
Connections	Pins and ground lug	Voltage Control	The output voltage is linearly proportional to the 0 to +5 V control input. For positive output units, +5 V gives maximum output and 0V gives minimum output. For negative output units, +5 V gives minimum negative output and 0 V provides maximum negative output. A +5 V internal reference is provided.
Size	2.05" x 1.00" x 0.61"		
Weight	≤ 1.5 oz. (42 grams)		

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

Typical Part Number:
521A-4 =

Input Voltage:
+24 to +28 VDC

Output Voltage Range:
-10 to -300 VDC

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

