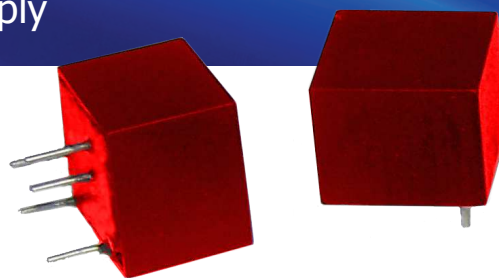


# PXS SERIES

## Proportional Extra-small High Voltage Power Supply

The PXS Series of proportional extra-small high voltage power supplies has excellent load regulation characteristics as well as superior temperature stability characteristics. The small size of the units, ease of control, and high stability, make the PXS Series optimal for hand-held devices, portable equipment, and other small high-voltage projects.

- Ultra-miniature size
- Unipolar models 50V through 300V
- Bipolar models  $\pm 25V$  through  $\pm 150V$
- Proportional or fixed output voltage
- Output power of 1.5 watts
- Excellent load regulation
- Efficiency as high as 90%
- 1000V of isolation from input to output



- Either output can be floated up to 1kV or grounded to set polarity
- No heat sink or electrical derating required

Typical applications for the PXS Series include pin diodes, avalanche photo diodes (APDs), piezoelectric devices, and more.

Please contact UltraVolt's customer service department for an analysis of your requirements.

PARAMETER	CONDITIONS	MODELS								UNITS
INPUT		ALL TYPES								
Voltage Range	Proportional Output Range & Fixed Output	2.5 to 3.47 = 75% to 105% Max, 3.3 = 100%	3.0 to 5.25 = 60% to 105% Max, 5.0 = 100%	4.5 to 9.45 = 50% to 105% Max, 9.0 = 100%	6.0 to 12.6 = 50% to 105% Max, 12.0 = 100%	7.5 to 15.75 = 50% to 105% Max, 15.0 = 100%	18.0 to 25.2 = 75% to 105% Max, 24.0 = 100%	21.0 to 29.4 = 75% to 105% Max, 28 = 100%		VDC
Current	Standby / Disable	< 10								mA
Current	No Load, Max Eout	3.3V: < 140mA, 28V: < 40mA								mA
Current	Max Load, Max Eout	3.3V: < 600mA, 28V: < 100mA								A
OUTPUT (UNIPOLAR)		50V	100V	150V	200V	250V	300V			VDC
Voltage, Fixed	Nominal Input	50	100	150	200	250	300			VDC
Voltage Range Proportional	XX% to 105%, Model Specific	25 to 52.5	50 to 105	75 to 157.5	100 to 210	125 to 262.5	150 to 315			VDC
Power	Nominal Input, Max Eout	1.5								W
Current	out Entire Output Voltage Range	30	15	10	7.5	6	5			mA
OUTPUT (BIPOLAR)		$\pm 25V$	$\pm 50V$	$\pm 75V$	$\pm 100V$	$\pm 125V$	$\pm 150V$			VDC
Voltage, Fixed	Nominal Input	$\pm 25$	$\pm 50$	$\pm 75$	$\pm 100$	$\pm 125$	$\pm 150$			VDC
Voltage Range Proportional	XX% to 105%, Model Specific	$\pm 12.5$ to $\pm 26.25$	$\pm 25$ to $\pm 52.5$	$\pm 37.5$ to $\pm 78.75$	$\pm 50$ to $\pm 105$	$\pm 62.5$ to $\pm 131.25$	$\pm 75$ to $\pm 157.5$			VDC
Power	Nominal Input, Max Eout	1.5								W
Current	out Entire Output Voltage Range	30	15	10	7.5	6	5			mA
OUTPUT		ALL TYPES								
Isolation	Input to Output	100 M $\Omega$ minimum at 1000								VDC
Ripple	Full Load, Max Eout	< 1%								%V p-p
Dynamic Load Regulation	½ to Full Load, Max Eout	< 5%								VDC
Line Regulation	Nom. Input, Max Eout, Full Power	Unregulated: Output directly proportional to input								-
Static Load Regulation	No Load to Full Load, Max Eout	< 6%								VDC
Stability	30 Min. warmup, per 8 hr/ per day	< 5%								VDC
PROGRAMMING & CONTROLS		ALL TYPES								
Enable/Disable		0 to +0.7 Disable, +2.9 to +5V or Vin (which ever is less) (Default = Enable)								-
ENVIRONMENTAL		ALL TYPES								
Operating	Derated	-55 to +85								°C
Operating	Full Load, Max Eout, Case Temp.	-40 to +65								°C
Storage	Non-Operating, Case Temp.	-55 to 125								°C
Temperature Coefficient	Over the Specific Temperature	200								PPM/°C
Humidity	All Conditions, Standard Package	0 to 95% non-condensing								-
Shock	Mil-Std-810, Method 516.5, Proc. IV	20								G's
Vibration	Mil-Std-810, Method 514.5, Fig.514.5C-3	10								-

Specifications subject to change without notice.

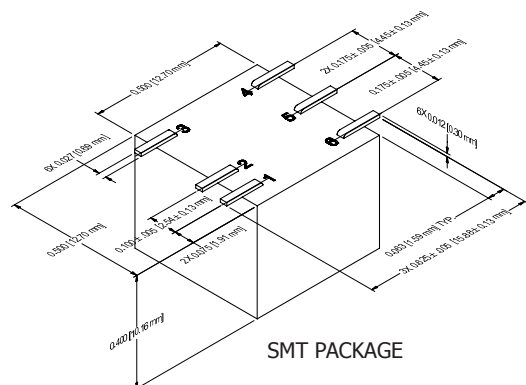


*Making High Voltage Easier!®*

**Higher Service, Higher Performance, Higher Reliability**

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## Proportional Extra-small High Voltage Power Supply



CONNECTIONS	
PIN	FUNCTION
1	-Vin
2	Enable
3	+Vin
4	+Vout
5	Center tap / Common
6	-Vout



## CONSTRUCTION

Epoxy filled DAP box certified to ASTM-D-5948

## SIZE

L x W x H = .500 (12.7) x .500 (12.7) x .400 (10.2)

Volume: 0.1in<sup>3</sup> (1.639cc)

Weight: 0.127oz (3.6g)

## TOLERANCE

All dimensions have a tolerance of  $\pm 0.010$  [0.25mm] unless otherwise specified.

## PINS

Standard Thru-hole: Brass, tin over nickel plated, 0.020 [0.51mm] Round  
SMT: Copper, tin plated, 0.012 [0.30mm] x 0.027 [0.69mm]

ORDERING INFORMATION		
Type (Nominal)	25VDC Output (Bipolar only)	0.025PXS
	50VDC Output	0.05PXS
	75V Output (Bipolar only)	0.075PXS
	100V Output	0.1PXS
	125V Output (Bipolar only)	0.125PXS
	150V Output	0.15PXS
	200V Output (Unipolar only)	0.2PXS
	250V Output (Unipolar only)	0.25PXS
	300V Output (Unipolar only)	0.3PXS
Input	3.3VDC Nominal	3.3
	5VDC Nominal	5
	9VDC Nominal	9
	12VDC Nominal	12
	15VDC Nominal	15
	24VDC Nominal	24
	28VDC Nominal	28
Case	Through Hole Pins	(Standard)
	SMT Pins	-SMT
Polarity	Floating Output	-FL
	Bipolar Output	-BP
Power	1.5 Watts Output	1.5

Example: 0.05PXS5-BP1.5

