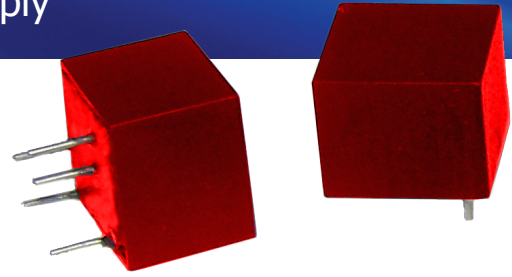


# PXS SERIES

## 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
<b>INPUT</b>		<b>ALL TYPES</b>							
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
<b>OUTPUT (UNIPOLAR)</b>		<b>50V</b>	<b>100V</b>	<b>150V</b>	<b>200V</b>	<b>250V</b>	<b>300V</b>	<b>VDC</b>	
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	
<b>OUTPUT (BIPOLAR)</b>		<b><math>\pm 25V</math></b>	<b><math>\pm 50V</math></b>	<b><math>\pm 75V</math></b>	<b><math>\pm 100V</math></b>	<b><math>\pm 125V</math></b>	<b><math>\pm 150V</math></b>	<b>VDC</b>	
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	
<b>OUTPUT</b>		<b>ALL TYPES</b>							
Isolation	Input to Output	100 M $\Omega$ minimum at 1000							VDC
Ripple	Full Load, Max Eout	< 1%							%V p-p
Dynamic Load Regulation	1/2 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
<b>PROGRAMMING &amp; CONTROLS</b>		<b>ALL TYPES</b>							
Enable/Disable		0 to +0.7 Disable, +2.9 to +5V or Vin (which ever is less) (Default = Enable)							-
<b>ENVIRONMENTAL</b>		<b>ALL TYPES</b>							
Operating	Derated	-55 to +85							$^{\circ}C$
Operating	Full Load, Max Eout, Case Temp.	-40 to +65							$^{\circ}C$
Storage	Non-Operating, Case Temp.	-55 to 125							$^{\circ}C$
Temperature Coefficient	Over the Specific Temperature	200							PPM/ $^{\circ}C$
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.



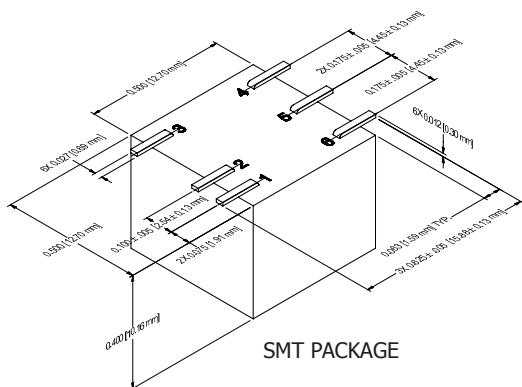
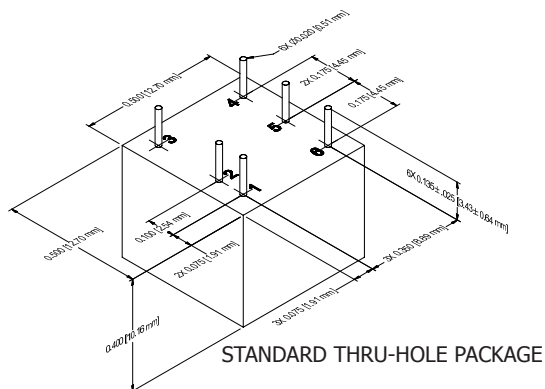
**Making High Voltage Easier!®**

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

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# PXS SERIES

## Proportional Extra-small High Voltage Power Supply



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



Non-RoHS compliant units are available. Please contact the factory for more information.

### 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 ±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
Input	300V Output (Unipolar only)	0.3PXS
	3.3VDC Nominal	3.3
	5VDC Nominal	5
	9VDC Nominal	9
	12VDC Nominal	12
	15VDC Nominal	15
Case	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

