



# American Power Design, Inc.

"The best high voltage design solution"

## S1 SERIES MINIATURE HIGH VOLTAGE DC/DC CONVERTERS



## FEATURES

### \* Customer Selects Output Voltages

- \* Voltages up to 500Vdc
- \* Wide Input Range (9-36Vdc)
- \* Efficiency 80% (typ.)
- \* 500 Vdc Isolation
- \* 24 PIN DIP Package
- \* 52 kHz Switching Frequency
- \* Single or Dual Outputs

The S1 Series of DC/DC converters accepts an ultra wide input range of 9-36 Vdc, delivering a 500 Vdc isolated high voltage output. All models feature 24-pin dip compatible configuration, continuous short circuit protection, and a low ESR input capacitor.

## ELECTRICAL SPECIFICATIONS

Voltage Accuracy .....	+/- 5%	Short Circuit Protection .....	Input Current Foldback
Input Regulation .....	+/- 1% / 20% of Vin	Input Filter .....	Low ESR Capacitor
Load Regulation .....	+/-5%	Efficiency .....	60% (typ.)
Output Ripple .....	< 0.3%	Switching Frequency .....	52 kHz
Peak Start-up Current.....	2A	Isolation .....	500 Vdc

## GENERAL SPECIFICATIONS

Temp. Stability.....	+/- 0.02%/°C	Temp. Derating .....	None
Temp. (Operating,Case) .....	-25 to +70°C	Cooling .....	Free-Air Convection
Temp. (Storage) .....	-40 to +100°C		

\* All models designed to meet UL 60950  
 \* For RoHS Compliant part, add suffix /Y

## PHYSICAL SPECIFICATIONS

Dimensions .....	0.8 x 1.25 x 0.52 inches	Case Material .....	Black Plastic
Weight .....	0.7 Oz		



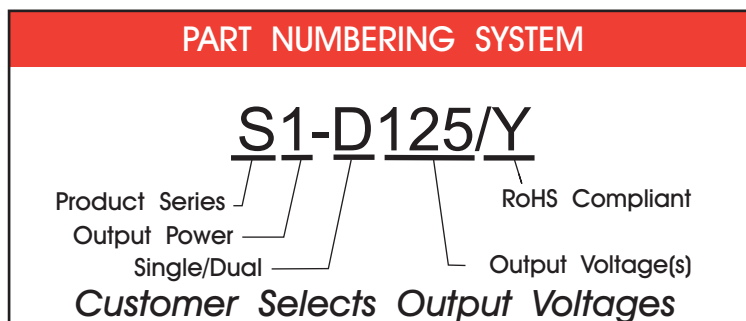
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REPRESENTATIVE MODEL LISTING						
MODEL NUMBER	INPUT SPECIFICATIONS		OUTPUT SPECIFICATIONS			
	VOLTAGE	CURRENT	+ OUTPUT		- OUTPUT	
			VOLTAGE	CURRENT	VOLTAGE	CURRENT
S1-S50	9V - 36V	0.18A - 0.05A	50V	20ma	N/A	N/A
S1-D50	9V - 36V	0.18A - 0.05A	50V	10ma	50v	10ma
S1-S75	9V - 36V	0.18A - 0.05A	75V	13ma	N/A	N/A
S1-D75	9V - 36V	0.18A - 0.05A	75V	6.5ma	75v	6.5ma
S1-S100	9V - 36V	0.18A - 0.05A	100V	10ma	N/A	N/A
S1-D100	9V - 36V	0.18A - 0.05A	100V	5ma	100v	5ma
S1-S150	9V - 36V	0.18A - 0.05A	150V	6.6ma	N/A	N/A
S1-D150	9V - 36V	0.18A - 0.05A	150V	3.3ma	150v	3.3ma
S1-S200	9V - 36V	0.18A - 0.05A	200V	5ma	N/A	N/A
S1-D200	9V - 36V	0.18A - 0.05A	200V	2.5ma	200v	2.5ma
S1-S250	9V - 36V	0.18A - 0.05A	250V	4ma	N/A	N/A
S1-D250	9V - 36V	0.18A - 0.05A	250V	2ma	250v	2ma
S1-S300	9V - 36V	0.18A - 0.05A	300V	3.3ma	N/A	N/A
S1-S350	9V - 36V	0.18A - 0.05A	350V	2.8ma	N/A	N/A
S1-S400	9V - 36V	0.18A - 0.05A	400V	2.5ma	N/A	N/A
S1-S500	9V - 36V	0.18A - 0.05A	500V	2ma	N/A	N/A

*\* RoHS Compliant add suffix /Y*

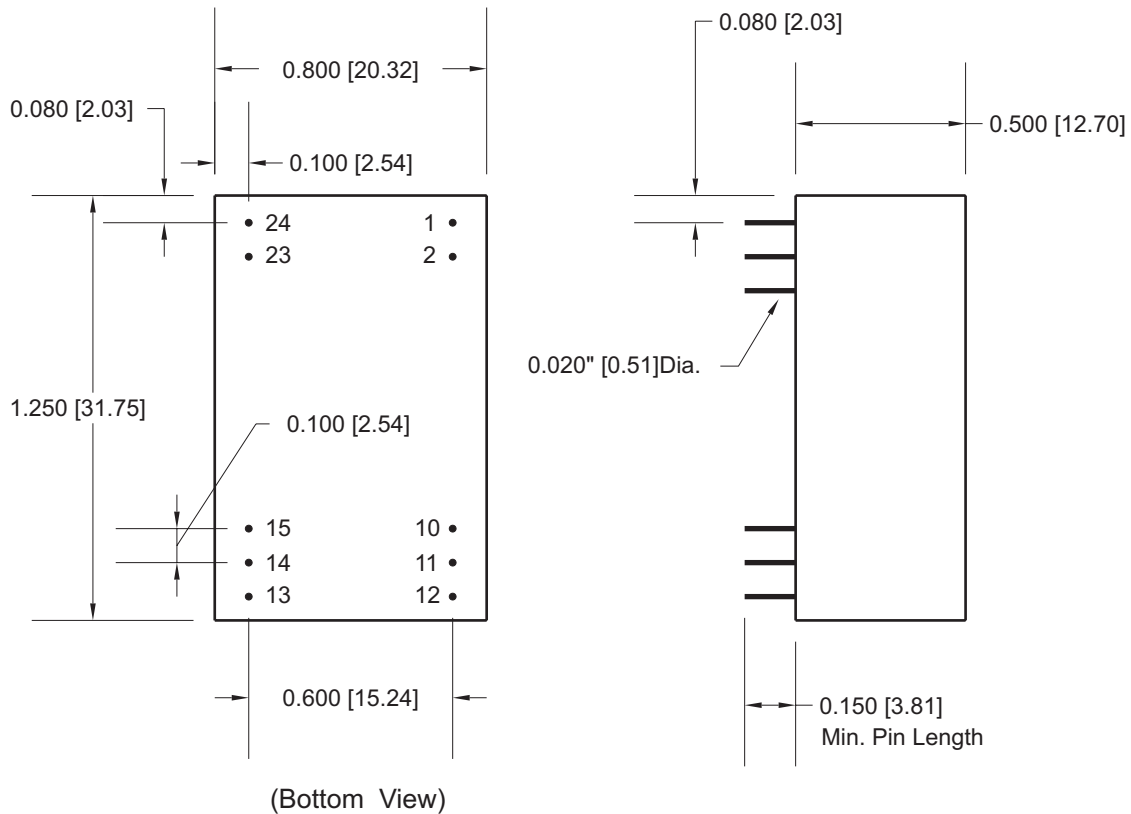




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Pin #	Single	Dual
1 & 24	+ INPUT	+ INPUT
2 & 23	- INPUT	- INPUT
10 & 15	+ OUTPUT	+ OUTPUT
11 & 14	N/C	COM
12 & 13	- OUTPUT	- OUTPUT

*Dimensions are in Inches  
[Metric equivalents in brackets]*