

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Ultra Compact, 1.5W to 12W Single and Dual DC-DC Converters

## **Features**

- ◆ Compact Footprint / Low Profile
- ◆ Through Hole or SMT Versions
- ◆ 5V, 12V, 24V & 48V Inputs
- ◆ 3.3 to 30V\* Single, ±12 to 15V Dual Outputs
- Output Voltage Adjustment
- ◆ Input Output Isolation
- ◆ RoHS Compliant Design
- ♦ 5 Year Warranty
- Self contained
- Multiple Input Voltage configurations
- Open frame (no potting)











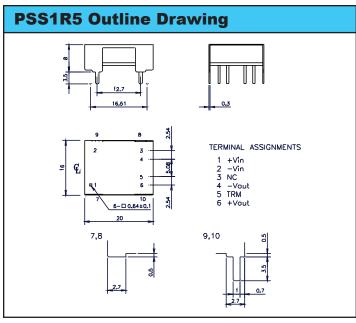
Specifications					
Model		3.3V	5V	12/15V (24/30V)*	
DC Input	V	5V: 4.5-9.0V, 12V: 9-18V, 24V: 18-36V, 48V: 36-76V			
Efficiency	-	73 to 84% model dependant			
Output Voltage Accuracy	%	±5%			
Output Adjustment	V	2.84V-3.67V 4.3V-6V 12V-15V (24-30V)			
Line Regulation	mV	PSS: 20mV, PSD: 40mV			
Load Regulation	mV	PSS: 40mV, PSD: 600mV			
Temperature Coefficient	%/ °C	<0.02%/°C			
Preload			No preload required		
Output Ripple	mV	100	100	120	
Overcurrent Protection	-	Output current limiting with automatic recovery.			
Overvoltage protection	-	No			
Remote On/Off (1)	-	Logic low (open to shutdown)			
Operating Temp Convection	-	-40 to 85°C, derates linearly to 40% load from 50 to 85°C			
Operating Temp Forced Air	-	-40 to 85°C with 1m/s air full load			
Storage Temperature	°C	-40°C to 85°C			
Humidity (Non condensing)	-	5 - 95% RH			
Isolation Voltage	-	500VAC 1 min. Input-Output, Input-Chassis			
Isolation Resistance	-	>100M at 25°C and 70%RH, 500VDC Output-Chassis			
Shock	m/s <sup>2</sup>		196.1m/s²		
Vibration (non operating)	-	10-55-10Hz (sweep for 1 min.) 0.825mm constant (Max 147m/s²) 1 hour X, Y, Z			
Weight	-	PS1R5: 4g, PS3: 5g, PS6: 8g, PS10:14g			
Size (L"x W"x H")	in	PSS/PSD1R5: 0.79 x 0.63 x 0.31; PSS/PSD3: 1.02 x 0.63 x 0.31			
(Through hole and SMT package)		PSS/PSD6: 1.12 x 0.8 x 0.31, PSS10: 1.59 x 0.866 x 0.31			
Warranty	yrs	Five Years			

Note: See Installation Manual for full specifications, test methods of parameters and application notes

## **Not Recomended For New Designs**

<sup>\*</sup> For 24/30V output use PSD models - connect across +Vout & -Vout and leave "common" pin not connected (1) Not available on PS1R5

Model Se	lector					
Output Voltage (V)	Output Current (A)	Max Output Power (W)	5V Input	12V Input	24V Input	48V Input
Single Outputs						
3.3	0.4	1.32	PSS1R5-5-3R3	PSS1R5-12-3R3	PSS1R5-24-3R3	PSS1R5-48-3R3
3.3	0.6	1.98	PSS3-5-3R3	PSS3-12-3R3	PSS3-24-3R3	PSS3-48-3R3
3.3	1.2	3.96	PSS6-5-3R3			
3.3	1.5	4.95		PSS6-12-3R3	PSS6-24-3R3	PSS6-48-3R3
3.3	2.0	6.6	PSS10-5-3R3	PSS10-12-3R3		
3.3	2.5	8.25			PSS10-24-3R3	PSS10-48-3R3
5.0	0.3	1.5	PSS1R5-5-5	PSS1R5-12-5	PSSIR5-24-5	PSS1R5-48-5
5.0	0.6	3.0	PSS3-5-5	PSS3-12-5	PSS3-24-5	PSS3-48-5
5.0	1.0	5.0	PSS6-5-5	-	-	-
5.0	1.2	6.0	-	PSS6-12-5	PSS6-24-5	PSS6-48-5
5.0	1.6	8.0	PSS10-5-5			
5.0	2.0	10.0	-	PSS10-12-5	PSS10-24-5	PSS10-48-5
12 (15)	0.125 (0.1)	1.5	PSS1R5-5-12	PSS1R5-12-12	PSS1R5-24-12	PSS1R5-48-12
12 (15)	0.25 (0.2)	3.0	PSS3-5-12	PSS3-12-12	PSS3-24-12	PSS3-48-12
12 (15)	0.5 (0.4)	6.0	PSS6-5-12	PSS6-12-12	PSS6-24-12	PSS6-48-12
12 (15)	0.7 (0.56)	8.4	PSS10-5-12			
12 (15)	1.0 (0.8)	12.0		PSS10-12-12	PSS10-24-12	PSS10-48-12
Dual Outputs						
±12(15)*	±0.065 (0.052)	1.44	PSD1R5-5-1212	PSD1R5-12-1212	PSD1R5-24-1212	PSD1R5-48-1212
±12(15)*	±0.13 (0.1)	3.0	PSD3-5-1212	PSD3-12-1212	PSD3-24-1212	PSD3-48-1212
±12(15)*	±0.25 (0.2)	6.0	PSD6-5-1212	PSD6-12-1212	PSD6-24-1212	PSD6-48-1212
±12(15)*	±0.35 (0.28)	8.4	PSD10-5-1212			
±12(15)*	±0.50 (0.40)	10.8		PSD10-12-1212	PSD10-24-1212	PSD10-48-1212



	2.7	
Options		
Suffix	Description	
Blank	Through hole mounting	
/S	Surface mount	

PSS1R5/S Outline Drawing	
12.7 16.51	<u>08±0.2</u>
9 8 5 1 1 +Vin 2 -Vin 3 NC 4 -Vout 5 TRM	GNMENTS
1~6	\$0 0 1 1 1 1 1 1

Other	Industrial Products
Χ	10 - 20W, 24 & 48V input DC-DC converters
PX	10 - 40W 12, 24, 48V DC-DC converters
PAQ,	50 -700W quarter, half & full bricks
PAH, PAF	

For Additional Information, please visit us.tdk-lambda.com/lp/products/ps-series.htm

