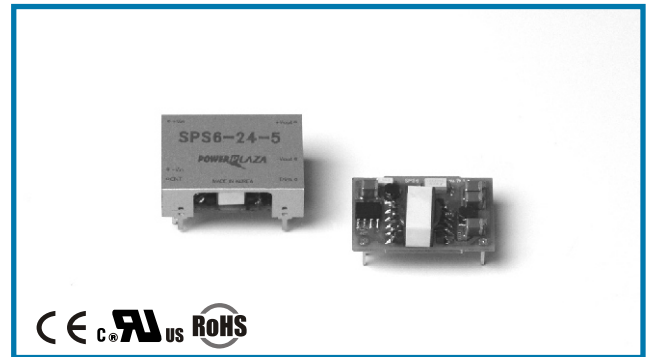


# SPS6

## Small size Isolated DC/DC Converters

**Total power**      6 Watts  
**Input voltages**    5V, 12V, 24V, 48V  
**#of outputs**        Single, Dual output



### SPECIAL FEATURES

- High efficiency
- Wide operating temperature range (-40 ~ +85 )
- Small size & Light weight
- Wide 2:1 input range
- Built - in over current protection circuit
- Input - Output Isolated
- Remote on/off control
- Trimmable output voltage (single output)
- Open case type
- Long Life Design (employ only ceramic capacitor)
- 5years warranty

### ENVIRONMENTAL

- Operating temperature range ..... -40 ~85
- Storage temperature range ..... -40 ~105
- Operating humidity (non consensing) .... 5% ~ 95%
- Storage humidity (non consensing) ..... 5% ~ 95%
- Cooling method ..... convection, forced air
- MTBF (MIL-HDBK-217F)..... 5.6 × 10<sup>5</sup> hrs
- Safety ..... UL(pending)  
CE(pending)

### ELECTRICAL SPECIFICATIONS

INPUT	<ul style="list-style-type: none"> <li>· Input range ..... DC 4.5V - 9V, 9V - 18V, 18V - 36V, 36V - 76V</li> <li>· Efficiency ..... 72% - 86%</li> <li>· Remote on/off ..... on : short to - Vin off : open</li> </ul>
OUTPUT	<ul style="list-style-type: none"> <li>· Voltage tolerance ..... ± 2%(Single) ± 3%(Daul)</li> <li>· Line Reg ..... ± 0.5%</li> <li>· Load Reg ..... ± 1%</li> <li>· Ripple &amp; Noise ..... 1% of Vout (Bandwidth : 20MHz)</li> </ul>
PROTECTION CIRCUIT	<ul style="list-style-type: none"> <li>· Short circuit protection ..... Current Limited Output</li> </ul>
ELECTRICALLY ISOLATED	<ul style="list-style-type: none"> <li>· Isolation ..... input - output, input - case, output - case / DC500V,100Mohms</li> <li>· High pot ..... input - output, input - case, output - case / AC500V, 1Min</li> </ul>

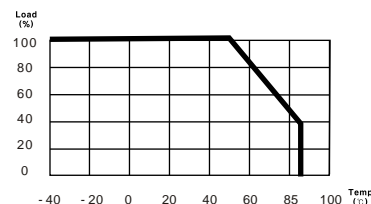
## Ordering Information

Input	Output1	Output2	Maximum Power	Ripple&Noise max	Efficiency Typ.	Model Number
4.5 - 9V	3.3V@1.2A		3.96W	50mVp-p	72%	<b>SPS6-5-3R3</b>
4.5 - 9V	5V@1.0A		5W	50mVp-p	78%	<b>SPS6-5-5</b>
4.5 - 9V	12V@0.5A		6W	120mVp-p	80%	<b>SPS6-5-12</b>
4.5 - 9V	15V@0.4A		6W	150mVp-p	80%	<b>SPS6-5-15</b>
4.5 - 9V	+12V@0.25A	-12V@0.25A	6W	120mVp-p	82%	<b>SPD6-5-1212</b>
4.5 - 9V	+15V@0.2A	-15V@0.2A	6W	150mVp-p	82%	<b>SPD6-5-1515</b>
9 - 18V	3.3V@1.5A		4.95W	50mVp-p	77%	<b>SPS6-12-3R3</b>
9 - 18V	5V@1.2A		6W	50mVp-p	81%	<b>SPS6-12-5</b>
9 - 18V	12V@0.5A		6W	120mVp-p	86%	<b>SPS6-12-12</b>
9 - 18V	15V@0.4A		6W	150mVp-p	86%	<b>SPS6-12-15</b>
9 - 18V	+12V@0.25A	-12V@0.25A	6W	120mVp-p	85%	<b>SPD6-12-1212</b>
9 - 18V	+15V@0.2A	-15V@0.2A	6W	150mVp-p	85%	<b>SPD6-12-1515</b>
18 - 36V	3.3V@1.5A		4.95W	50mVp-p	75%	<b>SPS6-24-3R3</b>
18 - 36V	5V@1.2A		6W	50mVp-p	80%	<b>SPS6-24-5</b>
18 - 36V	12V@0.5A		6W	120mVp-p	84%	<b>SPS6-24-12</b>
18 - 36V	15V@0.4A		6W	150mVp-p	84%	<b>SPS6-24-15</b>
18 - 36V	+12V@0.25A	-12V@0.25A	6W	120mVp-p	84%	<b>SPD6-24-1212</b>
18 - 36V	+15V@0.2A	-15V@0.2A	6W	150mVp-p	84%	<b>SPD6-24-1515</b>
36 - 76V	3.3V@1.5A		4.95W	50mVp-p	75%	<b>SPS6-48-3R3</b>
36 - 76V	5V@1.2A		6W	50mVp-p	81%	<b>SPS6-48-5</b>
36 - 76V	12V@0.5A		6W	120mVp-p	85%	<b>SPS6-48-12</b>
36 - 76V	15V@0.4A		6W	150mVp-p	85%	<b>SPS6-48-15</b>
36 - 76V	+12V@0.25A	-12V@0.25A	6W	120mVp-p	86%	<b>SPD6-48-1212</b>
36 - 76V	+15V@0.2A	-15V@0.2A	6W	150mVp-p	86%	<b>SPD6-48-1515</b>

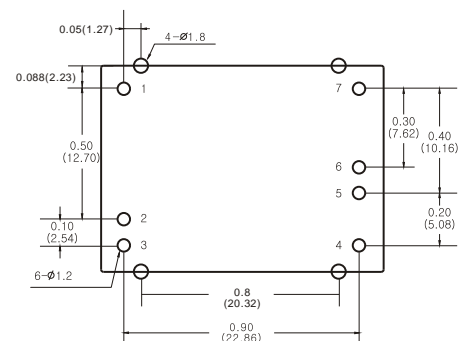
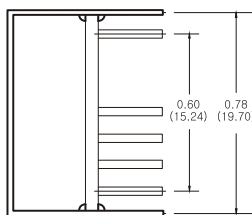
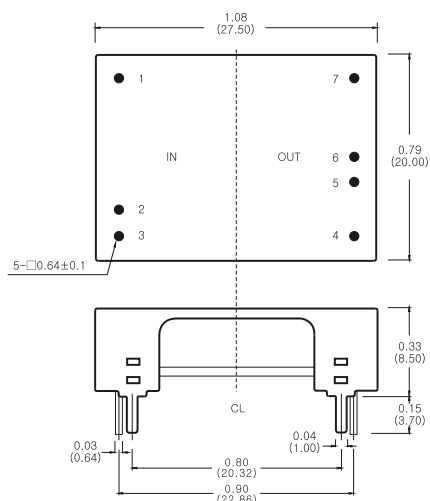
## Pin assignments

Single Output	Dual Output
1. +Vin	1. +Vin
2. - Vin	2. - Vin
3. CNT	3. CNT
4. Trim	4. -Vout
5. -Vout	5. No pin
6. No pin	6. COM
7. +Vout	7. +Vout

## Derating Curve



## Dimensions



### NOTES

- All dimensions are in inches and (mm).
- Weight : 5.8g or less