

P1R5

P 1.5 Watt Series DC/DC Converters

Total power 1.5 Watts
Input voltages 5V, 12V, 24V, 48V Input
#of outputs Single, Dual Output



SPECIAL FEATURES

- CE(LVD) Marking
- High efficiency
- 300KHz fixed frequency
- Wide 2:1 input range
- Isolated output
- Surface mounting technology
- Small, compact size 1.3"×0.83"×0.4"
- Current mode control
- Low output ripple & noise
- Low start up current
- 3 years warranty

ENVIRONMENTAL

- Operating temperature range -20°C ~ 71°C
- Option, see Note 1 -40°C ~ 85°C
- Storage temperature range -40°C ~ 105°C
- Operating humidity (non condensing) 20%~90%RH
- Storage humidity (non condensing) 10%~95%RH
- Cooling method Convection
- Case material Zn
- MTBF 7.9×10^5 hrs
- Safety(Single output) CE (EN 60950) through TÜV
*Approved

ELECTRICAL SPECIFICATIONS

INPUT	• Input range 4.5V to 7.2 VDC, 8V to 16.5 VDC, 18 to 32 VDC, 32V to 63 VDC • Efficiency 65 ~ 78% typ.
OUTPUT	• Voltage tolerance $\pm 2\%$ (Single and uncomplementary dual) $\pm 3\%$ (Complementary dual) • Line regulation $\pm 0.5\%$ • Load regulation $\pm 1\%$ @ Single $\pm 2.5\%$ @ dual(minimum load 10%) • Ripple and Noise, pk-pk Bandwidth : 20MHz Magnitude : 1% Vout nom
PROTECTION CIRCUIT	• Short circuit protection Current limited output (note2)
ELECTRICALLY ISOLATED	• Isolation Input-output, input-case, output-case / DC 500V, 100Mohms • High pot Input-output, input-case, output-case / AC 500V, 1 minute

NOTE 1. As a factory added option, the all model can be operated down to -40°C, the suffix 'M' should be added to the model number when ordering ex) PS10-24-5M
2. Long term continuous operation into a short circuit will compromise the reliability of the unit

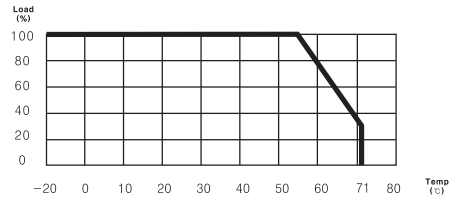
Ordering Information

Input	Output1	Output2	Maximum Power	Ripple&Noise max	Efficiency Typ.	Model Number
4.5 - 7.2V	3.3V@0.30A		0.99W	50mVp-p	65%	PS1R5-5-3R3
4.5 - 7.2V	5V@0.30A		1.5W	50mVp-p	67%	PS1R5-5-5
4.5 - 7.2V	12V@0.125A		1.5W	120mVp-p	67%	PS1R5-5-12
4.5 - 7.2V	15V@0.10A		1.5W	150mVp-p	67%	PS1R5-5-15
4.5 - 7.2V	+12V@0.06A	-12V@0.06A	1.44W	120/120mVp-p	67%	PD1R5-5-1212
4.5 - 7.2V	+15V@0.05A	-15V@0.05A	1.5W	150/150mVp-p	67%	PD1R5-5-1515
8 - 16.5V	3.3V@0.30A		0.99W	50mVp-p	76%	PS1R5-12-3R3
8 - 16.5V	5V@0.30A		1.5W	50mVp-p	78%	PS1R5-12-5
8 - 16.5V	12V@0.125A		1.5W	120mVp-p	78%	PS1R5-12-12
8 - 16.5V	15V@0.10A		1.5W	150mVp-p	78%	PS1R5-12-15
8 - 16.5V	+12V@0.06A	-12V@0.06A	1.44W	120/120mVp-p	78%	PD1R5-12-1212
8 - 16.5V	+15V@0.05A	-15V@0.05A	1.5W	150/150mVp-p	78%	PD1R5-12-1515
18 - 32V	3.3V@0.30A		0.99W	50mVp-p	69%	PS1R5-24-3R3
18 - 32V	5V@0.30A		1.5W	50mVp-p	71%	PS1R5-24-5
18 - 32V	12V@0.125A		1.5W	120mVp-p	73%	PS1R5-24-12
18 - 32V	15V@0.10A		1.5W	150mVp-p	73%	PS1R5-24-15
18 - 32V	+12V@0.06A	-12V@0.06A	1.44W	120/120mVp-p	73%	PD1R5-24-1212
18 - 32V	+15V@0.05A	-15V@0.05A	1.5W	150/150mVp-p	73%	PD1R5-24-1515
32 - 63V	3.3V@0.30A		0.99W	50mVp-p	70%	PS1R5-48-3R3
32 - 63V	5V@0.30A		1.5W	50mVp-p	72%	PS1R5-48-5
32 - 63V	12V@0.125A		1.5W	120mVp-p	73%	PS1R5-48-12
32 - 63V	15V@0.10A		1.5W	150mVp-p	73%	PS1R5-48-15
32 - 63V	+12V@0.06A	-12V@0.06A	1.44W	120/120mVp-p	73%	PD1R5-48-1212
32 - 63V	+15V@0.05A	-15V@0.05A	1.5W	150/150mVp-p	73%	PD1R5-48-1515

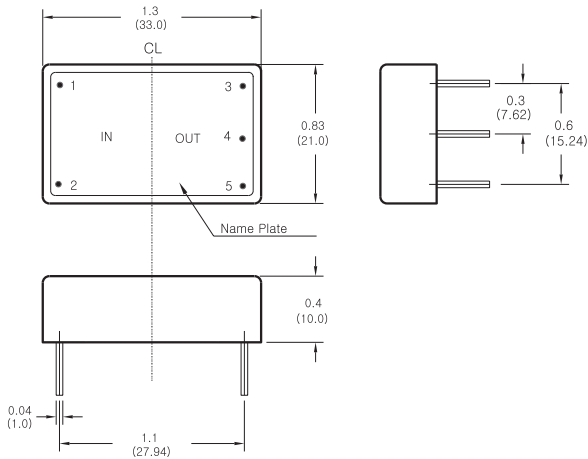
Pin assignments

Single Output	Dual Output
1. +Vin	1. +Vin
2. -Vin	2. -Vin
3. +Vout	3. Output1
4. No pin	4. COM
5. -Vout	5. Output2

Derating curve



Dimensions



NOTES

- All dimensions are in inches and (mm).
- Weight : 12g or less

