

P 1.5Watt Series DC/DC Converters

P 1R5

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



SPECIAL FEATURES

High efficiency
 300KHz fixed frequency
 Wide 2 : 1 input range
 Isolated output
 Surface mounting technology
 Small, compact size 1.3" x 0.83" x 0.4"
 Current mode control
 Output low ripple and 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 methodconvection
 Case materialZn
 MTBF 7.9 x 10⁵ hrs

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 e.x PS1R5-24-5M
2. Long term continuous operation into a short circuit will compromise the reliability of the unit

ELECTRICAL SPECIFICATIONS

INPUT

Input range4.5V to 7.2 VDC , 8V to 16.5 VDC
 18 to 32 VDC , 32V to 63 VDC
 Efficiency69 ~ 77% typ.

OUTPUT

Voltage tolerance ±2%
 Line regulation ±0.5%
 Load regulation ±1% @ single
 ±2.5% @ dual (minimum load 10%)
 Ripple and Noise, pk-pk Bandwidth : 20MHz
 Magnitude : 1% Vout nom

PROTECTION CIRCUIT

Short circuit protectionCurrent 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

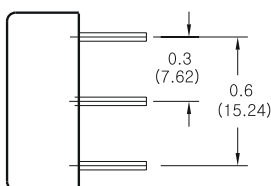
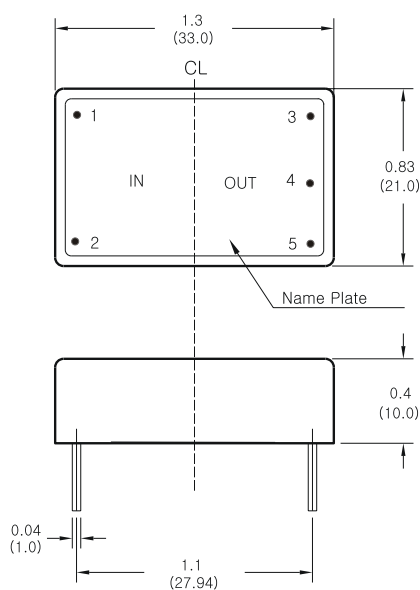
Ordering Information

Input	Output 1	Output 2	Output 3	Maximum Power	Ripple & Noise (mVp-p)	Efficiency Typ.	Model number
4.5-7.2V	3.3V@0.3A			0.99W	50	67%	PS1R5-5-3.3
4.5-7.2V	5V@0.3A			1.5W	50	67%	PS1R5-5-5
4.5-7.2V	12V@0.125A			1.5W	120	67%	PS1R5-5-12
4.5-7.2V	15V@0.1A			1.5W	150	67%	PS1R5-5-15
4.5-7.2V	+12V@0.06A	-12V@0.06A		1.44W	120/120	67%	PD1R5-5-1212
4.5-7.2V	+15V@0.05A	-15V@0.05A		1.5W	150/150	67%	PD1R5-5-1515
8-16.5V	3.3V@0.3A			0.99W	50	76%	PS1R5-12-3.3
8-16.5V	5V@0.3A			1.5W	50	76%	PS1R5-12-5
8-16.5V	12V@0.125A			1.5W	120	76%	PS1R5-12-12
8-16.5V	15V@0.1A			1.5W	150	76%	PS1R5-12-15
8-16.5V	+12V@0.06A	-12V@0.06A		1.44W	120/120	75%	PD1R5-12-1212
8-16.5V	+15V@0.05A	-15V@0.05A		1.5W	150/150	75%	PD1R5-12-1515
18-32V	3.3V@0.3A			0.99W	50	77%	PS1R5-24-3.3
18-32V	5V@0.3A			1.5W	50	77%	PS1R5-24-5
18-32V	12V@0.125A			1.5W	120	77%	PS1R5-24-12
18-32V	15V@0.1A			1.5W	150	77%	PS1R5-24-15
18-32V	+12V@0.06A	-12V@0.06A		1.44W	120/120	76%	PD1R5-24-1212
18-32V	+15V@0.05A	-15V@0.05A		1.5W	150/150	76%	PD1R5-24-1515
32-63V	3.3V@0.3A			0.99W	50	77%	PS1R5-48-3.3
32-63V	5V@0.3A			1.5W	50	77%	PS1R5-48-5
32-63V	12V@0.125A			1.5W	120	77%	PS1R5-48-12
32-63V	15V@0.1A			1.5W	150	77%	PS1R5-48-15
32-63V	+12V@0.06A	-12V@0.06A		1.44W	120/120	76%	PD1R5-48-1212
32-63V	+15V@0.05A	-15V@0.05A		1.5W	150/150	76%	PD1R5-48-1515

Pin assignments

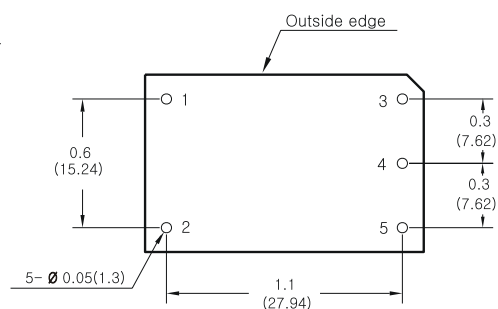
Single Output	Dual Output
1. +Vin	1. +Vin
2. -Vin	2. -Vin
3. Output 1	3. Output 1
4. No pin	4. COM
5. Gnd	5. Output 2

Dimensions



Notes

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



* MOUNTING HOLE
TOP VIEW