

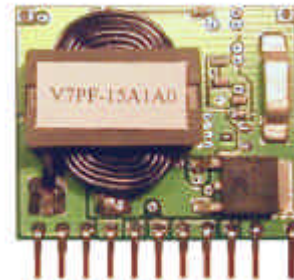
# NON-ISOLATED DC/DC CONVERTERS

12V Input / 0.9V – 5.0V Output / 15A



## V7PF-15A Series PRELIMINARY

- Industry standard pinout
- High efficiency means less power dissipation
- Remote on/off
- Overcurrent protection



### Description

The V7PF-15A Series are non-isolated step down DC/DC converters that operate from a nominal 12V source. These converters are available in a range of output voltages from 0.9V to 5.0V. They are packaged in an industry standard single-in-line footprint and provide a maximum 15A output. Standard features include remote on/off, over current protection, thermal protection, output voltage adjust and remote sense. These products maybe used almost anywhere low-voltage silicon is being employed and a 12V source is available. Typical applications include file servers, routers, line cards, and other computing and communications equipment.

### Part Selection

Output Voltage	Input Voltage	Max. Output Current	Max. Output Power	Typical Eff. (5V out)	Model Number
0.9 – 5.0V	12V	15A	75W	92%	V7PF-15A1A0
1.2 – 5.0V	12V	15A	75W	92%	V7PF-15A1AC

### Input Specifications

Parameter	Min	Typ	Max	Notes
Input Voltage Range	10.8VDC		13.2 VDC	
Input Current (full load)			6.9A	At 5.0V out, full load
Reflected Ripple Current			120mA p-p	With a simulated source impedance of 1500nH, 5Hz to 20 MHz

### Output Specifications

Parameter	Min	Typ	Max	Notes
Output Current	0A		15A	
Setpoint Accuracy	-2%		+2%	
Total Regulation				Regulation over all operating conditions and temperatures.
5V			55mV	
2.5V			33mV	
1.2V			21mV	
0.9V			17mV	
Ripple and Noise			50mV pk-pk / 25mV rms	0 to 20MHz Bandwidth Tested with .01uF Ceramic, 10uF Al and 680uF OSCON capacitors on output.
Output Capacitance				
5V			5080uF	
2.5V	680uF		7640uF	
1.2V			9680uF	
0.9V			11000uF	

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## Output Specifications (continued)

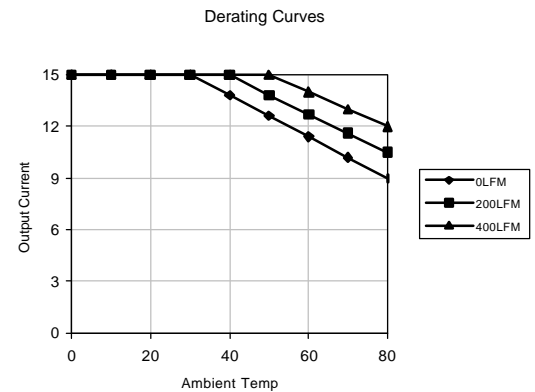
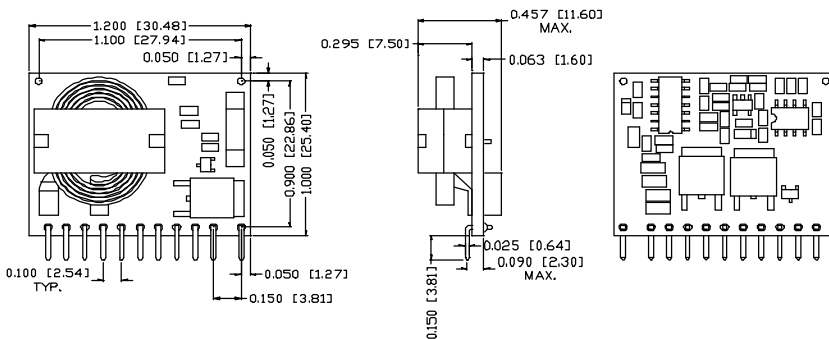
Parameter	Min	Typ	Max	Notes
Transient Response Max deviation Recovery to within $\pm 1\%$			100mV 200uS	di/dt = 0.1A/uS, Vin =12VDC Ta = 25°C, 50-100% load change, Cout = 680uF.

## General Specifications

Parameter	Specification
Switching Frequency	200kHz typical (fixed)
Dimensions	
inches	1.20 x 1.00 x 0.46
mm	30.5 x 25.4 x 11.6
Weight	14.2 g
Operating Temperature	0°C to 80°C (see curve)
Non-Operating Temperature	-40°C to 125°C
Protection Features	
Short circuit	Continuous
Over current	130% to 250% max Io
Undervoltage	UVLO Vin < 9.8V
Remote On/Off	Active High
Efficiency	
5V	92%
2.5V	87%
1.2V	79%

## Pin Connections

Pin	Function
1	Vout
2	Vout
3	Vout
4	Trim
5	Output Enable
6	Power Good
7	GND
8	GND
9	Reserved
10	Vin
11	Vin



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