

# COMMERCIAL DC/DC Converters

Stand: 16/08

## 2 - 5 Ampere Series: OPT5XXXP/D

### Electrical specifications:

Input voltage range: 4,5V - 18V  
Output voltage accuracy: max. +/- 2%  
Line Voltage regulation: max. 1%  
Load Voltage regulation: max. 2% (10% to 100% full load)  
Efficiency: up to 96%

Output Ripple & Noise:  
Short circuit protection:  
Operating temperature:  
Isolation voltage:

max. 120mVp-p  
continuous  
-40°C to +85°C  
none

### Features:

Auto-sense (add "A" to end of part number)  
Efficiency up to 96%  
with the synchronous rectification design  
Adjustable Output voltage.  
Over load protection (125% full load typical)  
Parallel Application Circuit possible

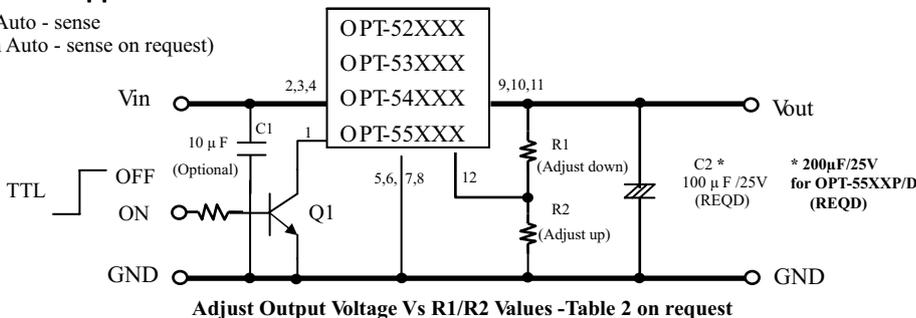
Continuous short circuit protection.  
(Very low short current  $I_{sc} < 50\text{mA}$ )  
Remote ON/OFF control (ground off)  
Wide input range.(4.5V ~ 18V)  
Non-isolation.

Order Code	Input Voltage		Output Voltage	Vo Adjust Range (See Table-2) - on request -	Output Current
	Min	Max			
OPT-521.2P/D	4.5V	18V	1.2V	1.0~3.0V	2A
OPT-521.8P/D	4.5V	18V	1.8V	1.1~4.5V	2A
OPT-522.5P/D	4.5V	18V	2.5V	1.6~5.5V	2A
OPT-523.3P/D	4.5V	18V	3.3V	1.6~5.5V	2A
OPT-525.0P/D	6.5V	18V	5.0V	3.0~5.5V	2A
OPT-531.2P/D	4.5V	18V	1.2V	1.0~3.0V	3A
OPT-531.8P/D	4.5V	18V	1.8V	1.1~4.5V	3A
OPT-532.5P/D	4.5V	18V	2.5V	1.6~5.5V	3A
OPT-533.3P/D	4.5V	18V	3.3V	1.6~5.5V	3A
OPT-535.0P/D	6.5V	18V	5.0V	3.0~5.5V	3A
OPT-541.2P/D	4.5V	18V	1.2V	1.0~3.0V	4A
OPT-541.8P/D	4.5V	18V	1.8V	1.1~4.5V	4A
OPT-542.5P/D	4.5V	18V	2.5V	1.6~5.5V	4A
OPT-543.3P/D	4.5V	18V	3.3V	1.6~5.5V	4A
OPT-545.0P/D	6.5V	18V	5.0V	3.0~5.5V	4A
OPT-551.2P/D	4.5V	18V	1.2V	1.0~3.0V	5A
OPT-551.8P/D	4.5V	18V	1.8V	1.1~4.5V	5A
OPT-552.5P/D	4.5V	18V	2.5V	1.6~5.5V	5A
OPT-553.3P/D	4.5V	18V	3.3V	1.6~5.5V	5A
OPT-555.0P/D	7.0V	18V	5.0V	3.0~5.5V	5A

Note : IF used adjust function :  $V_{in} - V_{out} > 1.5V \sim 2.0V$

### Standard application circuit

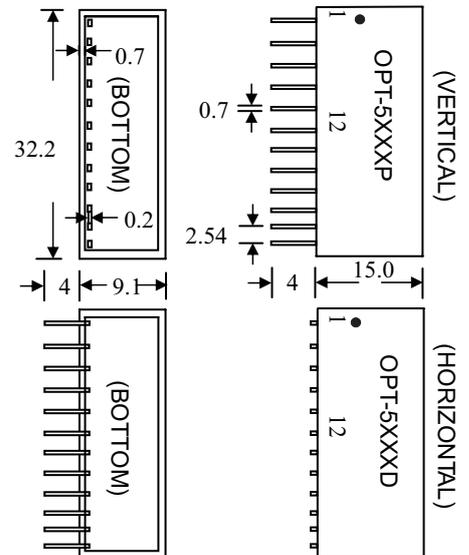
Non Auto - sense  
(With Auto - sense on request)



### Description :

The OPT-5XXX series is a high performance 1.2V to 5.0V, 2Amp to 5Amp, 12-Pin SIP (single in-line package). Integrated switching regulator (ISR), while the synchronous - rectified design yields excellent efficiencies upto 96%. Short circuit protection with the crowbar function to reduced the short current under 50mA of input current. Auto-sense be able to use as a compensator for the dropping voltages of the circuit loops.

Specification may be changed without notice  
please contact office for verification



PIN	FUNCTION
1	ON/OFF(18V max)
2	Vin
3	Vin
4	Vin
5	GND
6	GND
7	GND
8	GND
9	Vout
10	Vout
11	Vout(Auto-sense)
12	Vout Adj

( ) : Auto-sense series only

ALL DIMENSIONS IN MM  
Tolerance +/- 0,25mm  
All pins on a 2,54mm pitch  
NC = No connection, NP = No pin  
Dot denotes pin 1

We can offer EMC - Filter  
according to EN55011/22 Class B.

# COMMERCIAL DC/DC Converters

Stand: 16/08

## 1 - 2 Ampere Series: OPT6XXXP/D

### Electrical specifications:

Input voltage range: 9V - 32V  
Output voltage accuracy: max. +/- 2%  
Line Voltage regulation: max. 0,5%  
Load Voltage regulation: max. 1% (10% to 100% full load)  
Efficiency: up to 96%

Output Ripple & Noise:  
Short circuit protection:  
Operating temperature:  
Isolation voltage:

max. 120mVp-p  
continuous  
-40°C to +85°C  
none

### Features:

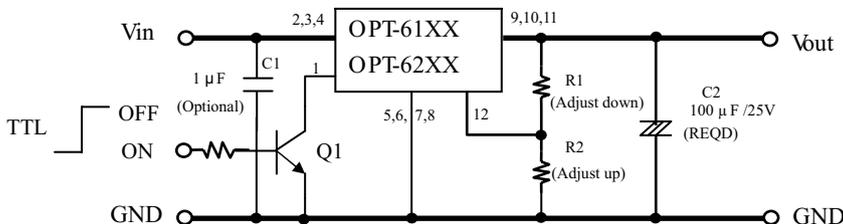
Efficiency up to 96%  
Negative output specifications (on request)  
Adjustable Output voltage.  
"X1" suffix of part number means active Low  
(TTL-High/OFF : Open or TTL-Low/ON)

Continuous short circuit protection.  
(Very low short current  $I_{sc} < 50\text{mA}$ )  
Remote ON/OFF control (ground off)  
Wide input range.(9V ~ 32V)  
Non-isolation.

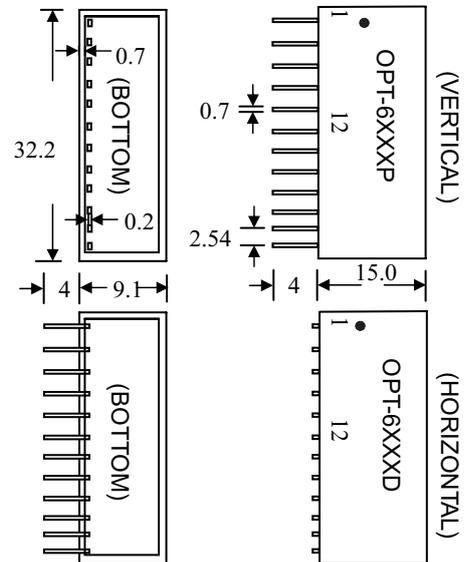
Order Code	Input Voltage		Output Voltage	Vo Adjust Range (See Table-2) - on request -	Output Current
	Min	Max			
OPT-611.8P/D	9V	32V	+1.8V	1.5~3.6V	1A
OPT-612.5P/D	9V	32V	+2.5V	1.5~4.5V	1A
OPT-613.3P/D	9V	32V	+3.3V	1.8~6.0V	1A
OPT-615.0P/D	9V	32V	+5.0V	1.8~9.0V	1A
OPT-619.0P/D	11V	32V	+9.0V	3.3~15V	1A
OPT-6112P/D	14V	32V	+12.0V	3.3~15V	1A
OPT-621.8P/D	9V	32V	+1.8V	1.5~3.6V	2A
OPT-622.5P/D	9V	32V	+2.5V	1.5~4.5V	2A
OPT-623.3P/D	9V	32V	+3.3V	1.8~6.0V	2A
OPT-625.0P/D	9V	32V	+5.0V	1.8~9.0V	2A
OPT-629.0P/D	11V	32V	+9.0V	3.3~15V	2A
OPT-6212P/D	14V	32V	+12.0V	3.3~15V	2A

Note : IF used adjust function :  $V_{in} - V_{out} \geq 1.5V$

### Standard application circuit



Adjust Output Voltage Vs R1/R2 Values -Table 2 on request



PIN	FUNCTION
1	ON/OFF(10V max)
2	Vin
3	Vin
4	Vin
5	GND
6	GND
7	GND
8	GND
9	Vout
10	Vout
11	Vout
12	Vout Adj

ALL DIMENSIONS IN MM  
Tolerance +/- 0,25mm  
All pins on a 2,54mm pitch  
NC = No connection, NP = No pin  
Dot denotes pin 1

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# COMMERCIAL DC/DC Converters

## 2 - 4 Ampere Series: OPT7XXXP/D

### Electrical specifications:

Input voltage range: 4,5V - 28V  
Output voltage accuracy: max. +/- 2%  
Line Voltage regulation: max. 1%  
Load Voltage regulation: max. 1% (10% to 100% full load)  
Efficiency: up to 96%

Output Ripple & Noise:  
Short circuit protection:  
Operating temperature:  
Isolation voltage:

max. 70mVp-p  
continuous  
-40°C to +85°C  
none

### Features:

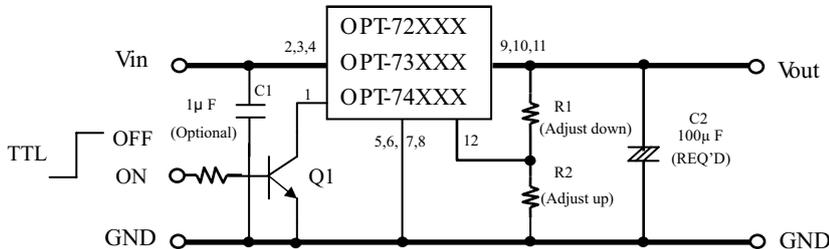
Efficiency up to 96%  
with the synchronous rectification design  
Adjustable Output voltage.  
Over load protection (125% full load typical)  
Parallel Application Circuit possible

Continuous short circuit protection.  
(Very low short current  $I_{in} < 50\text{mA}$ )  
Remote ON/OFF control (ground off)  
Wide input range.(4.5V ~ 28V)  
Non-isolation.

Order Code	Input Voltage		Output Voltage	Vo Adjust Range (See Table-2) - on request -	Output Current
	Min	Max			
OPT-723.3P/D	4.5V	28V	3.3V	2.5~5.5V	2A
OPT-725.0P/D	6.5V	28V	5.0V	3.0~6.0V	2A
OPT-726.5P/D	8.5V	28V	6.5V	5.0~8.0V	2A
OPT-729.0P/D	12V	28V	9.0V	7.0~11V	2A
OPT-7212P/D	15V	28V	12V	10~14V	2A
OPT-7215P/D	19V	28V	15V	13~17V	2A
OPT-733.3P/D	4.5V	28V	3.3V	2.5~5.5V	3A
OPT-735.0P/D	6.5V	28V	5.0V	3.0~6.0V	3A
OPT-736.5P/D	8.5V	28V	6.5V	5.0~8.0V	3A
OPT-739.0P/D	12V	28V	9.0V	7.0~11V	3A
OPT-7312P/D	15V	28V	12V	10~14V	3A
OPT-7315P/D	19V	28V	15V	13~17V	3A
OPT-743.3P/D	4.5V	28V	3.3V	2.5~5.5V	4A
OPT-745.0P/D	6.5V	28V	5.0V	3.0~6.0V	4A
OPT-746.5P/D	8.5V	28V	6.5V	5.0~7.5V	4A

Note : IF used adjust function :  $V_{in} - V_{out} > 1.5V \sim 4.0V$

### Standard application circuit

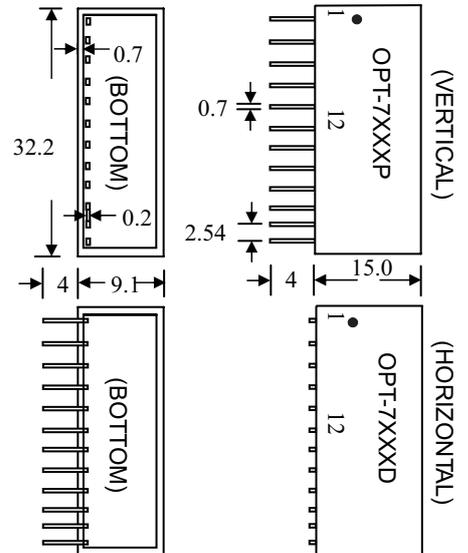


Adjust Output Voltage Vs R1/R2 Values -Table 2 on request

### Description :

The OPT-7XXX series is a high performance 2.5V to 15V, 2Amp to 4Amp, 12-Pin SIP (single in-line package). Integrated switching regulator (ISR), while the synchronous - rectified design yields excellent efficiencies upto 96%. Short circuit protection with the crowbar function to reduced the short current under 50mA of input current.

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PIN	FUNCTION
1	ON/OFF(30V max)
2	Vin
3	Vin
4	Vin
5	GND
6	GND
7	GND
8	GND
9	Vout
10	Vout
11	Vout
12	Vout Adj

ALL DIMENSIONS IN MM  
Tolerance +/- 0,25mm  
All pins on a 2,54mm pitch  
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