

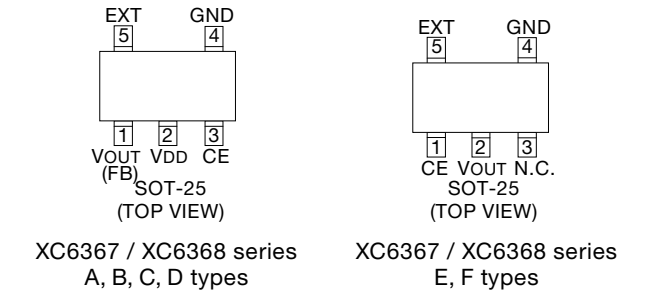
XC6367/XC6368 Series

PWM Controlled, PWM/PFM Switchable Step-up DC/DC Converter

General Description

The XC6367/68 series are multi-functional step-up DC/DC converter controllers with built-in high speed, low ON resistance drivers. Large output currents are possible using an externally connected transistor, coil, diode and condenser. Output voltage (VOUT) is programmable in 0.1V steps from 1.5V to 6.5V ($\pm 2.5\%$ accuracy). Further, with 1.0V of standard voltage supply internal, and using externally connected components, output voltage (FB) can be set up at will. With a 300kHz switching frequency, the size of the external components can be reduced. Control switches from PWM to PFM during light loads with the XC6368 (PWM/PFM switchable) and the series is highly efficient from light loads to large output currents. Both internally set-up 10msec types (A,B,E), and adjustable soft-start time types (C,D,F) using externally connected resistors and capacitors are available. During stand-by time (CE pin "Low"), current consumption is reduced to less than 0.5 μ A.

Pin Configuration



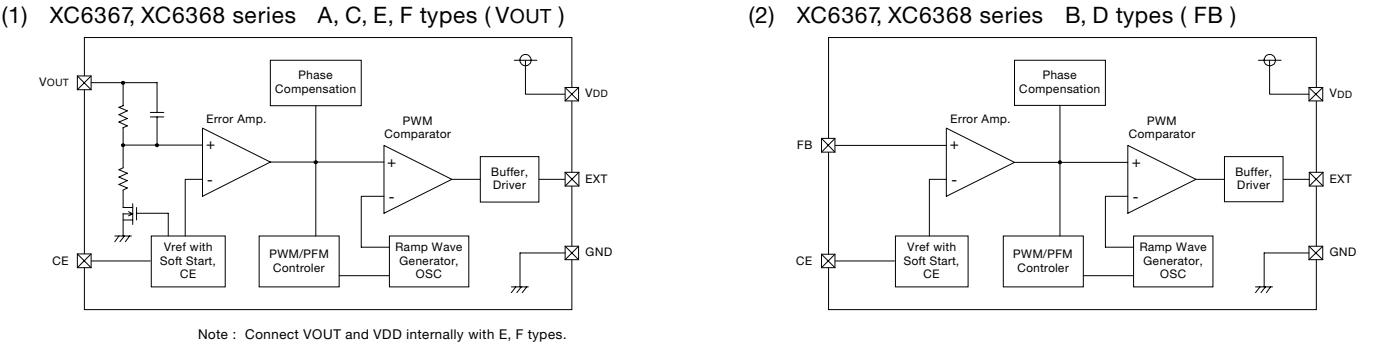
Features

- Input voltage range: 0.9V to 10V
- Operating Voltage Range: 2.0V to 10V
- Output voltage range: 1.5V to 6.5V programmable in 0.1V steps ($\pm 2.5\%$)
- Oscillator frequency: 300, 100kHz ($\pm 15\%$)
Custom products for 180, 500 kHz
- Output current: 200mA + (VIN =1.8V, VOUT =3.3V)
- High Efficiency: 84% (typ.)
- Stand-by capability: ISTB =0.5 μ A (max.)
- Soft-start time set-up externally type possible
- Internally set-up output voltage type possible (VOUT)
- Externally set-up output voltage type possible (FB)
- Package: SOT-25

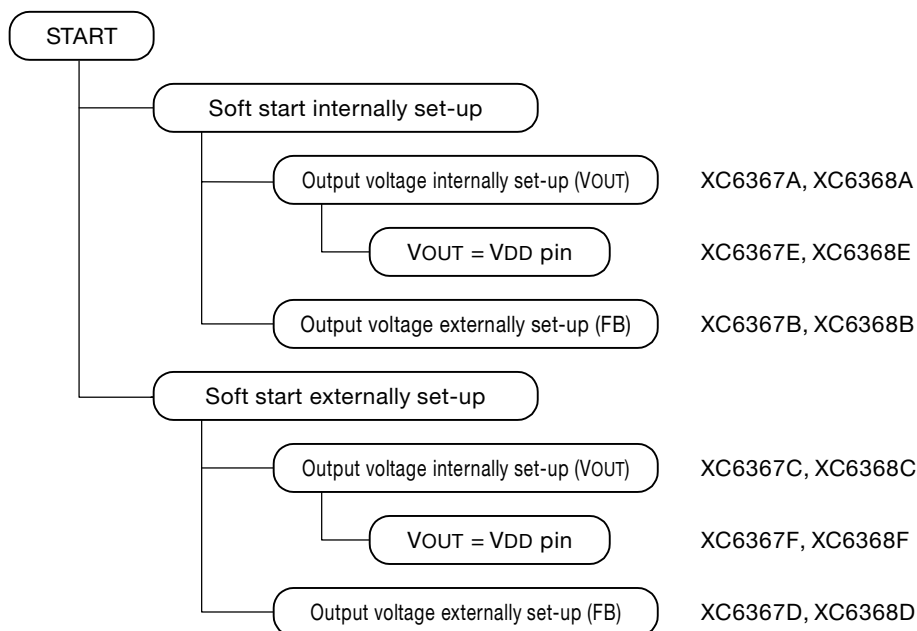
Pin Assignment

PIN NUMBER		PIN NAME	FUNCTION
XC6367 / XC6368			
A,B,C,D	E,F		
5	5	EXT	External transistor connection
2	-	VDD	Supply voltage input
4	4	GND	Ground
3	1	CE	Chip enable (C,D,F types : soft start set-up external,soft start capacitor connected)
1	2	VOUT (FB)	Output voltage monitor (E,F types : output voltage monitor, power supply) (B,D types : output voltage set-up external)

Block Diagram



Selection Guide



Ordering Information

XC6367①②③④⑤⑥

XC6367series PWM control

SYMBOL	FUNCTION	VOUT/FB	SOFT-START
①	A (5 pin)	VOUT	Internally set-up
	B (5 pin)	FB	Internally set-up
	C (5 pin)	VOUT	Externally set-up
	D (5 pin)	FB	Externally set-up
	E CE (4 pin)	VOUT	Internally set-up
	F CE (4 pin)	VOUT	Externally set-up
② ③	Output voltage value : e.g. 3.0V output : ② = 3, ③ = 0 FB products (B,D types) : ② = 1, ③ = 0		
④	3	Oscillator frequency 300kHz	
	1	Oscillator frequency 100kHz	
	2	Oscillator frequency 180kHz	
	5	Oscillator frequency 500kHz	
⑤	M	Package : SOT - 25	
⑥	R	Embossed tape : standard loading	
	L	: reverse loading	

XC6368①②③④⑤⑥

XC6368 series PWM/PFM switching control

SYMBOL	FUNCTION	VOUT/FB	SOFT-START
①	A (5 pin)	VOUT	Internally set-up
	B (5 pin)	FB	Internally set-up
	C (5 pin)	VOUT	Externally set-up
	D (5 pin)	FB	Externally set-up
	E CE (4 pin)	VOUT	Internally set-up
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⑥	R	Embossed tape : standard loading	
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