



General Description

The OCP2182 is a 1.5MHz constant frequency, high efficiency, high current, slope compensated current mode PWM step-down DC-DC converter. The device integrates a main switch and a synchronous rectifier for high efficiency without an external Schottky diode. The OCP2182 can operate from a 2.5V to 5.5V input voltage and is ideal for powering portable equipment that runs from a single cell lithium-Ion (Li+) battery. It can supply 1.6A output current and can also run at 100% duty cycle for low dropout operation, extending battery life in portable system. Pulse Skipping Mode operation at light loads provides very low output ripple voltage for noise sensitive applications.

The OCP2182 is offered in small profile 10-Lead MSOP and DFN packages, and is available in an adjustable version and fixed output voltage of 1.0V, 1.2V, 1.5V and 1.8V.

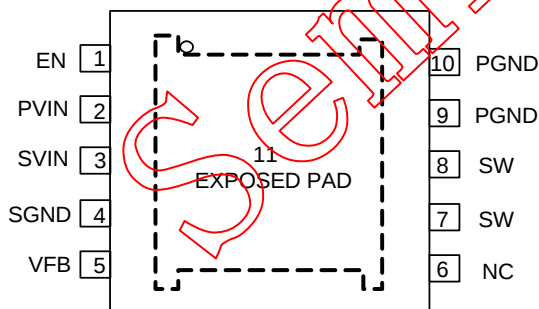
Applications

- Portable Instruments
- Digital Cameras
- Cellular and Smart Telephones
- PDAs
- DSP Core Supplies

Pin Configuration

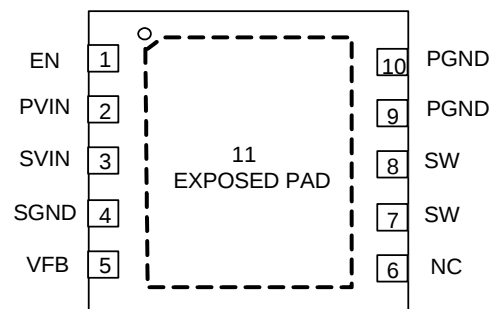
1) MSOP-10

(Top View)



2) DFN-10

(Top View)



Features

- High Efficiency : Up to 95%
- 1.5MHz Constant Switching Frequency
- 1.6A Output Current
- 2.5V to 5.5V Input Voltage Range
- Output Voltages from 0.6V to 5V
- Low RDS(ON) Internal Switches: 90mΩ
- Available in Fixed Output Voltages of 1.0V, 1.2V, 1.5V, 1.8V and Adjustable Version
- Allow use of ceramic capacitors
- Current Mode Operation for excellent line and load transient Response
- Short-Circuit Protection
- Low Dropout Operation: 100% Duty Cycle
- Low Shutdown Current: $I_{shutdown} < 1\mu A$
- Small 10-Lead MSOP and DFN Packages

Pin Number	Pin Name	Pin Function
1	EN	Chip Enable ;EN=VIN, Enable; EN=GND, Disable
2	PVIN	Power Supply Pin
3	SVIN	Signal Supply Pin
4	SGND	Signal Ground Pin
5	VFB/VOUT	Feedback Input Pin. It receives the feedback voltage from the external resistive divider across the output. Output voltage feedback Pin. An internal resistive divider divides the output voltage down for comparison to the internal reference voltage.
6	NC	No Connect
7,8	SW	Power Switch Output
9,10	PGND	Power Ground
11	EXPOSED PAD	Power Ground. It must be connect to ground properly.



■ Application Information

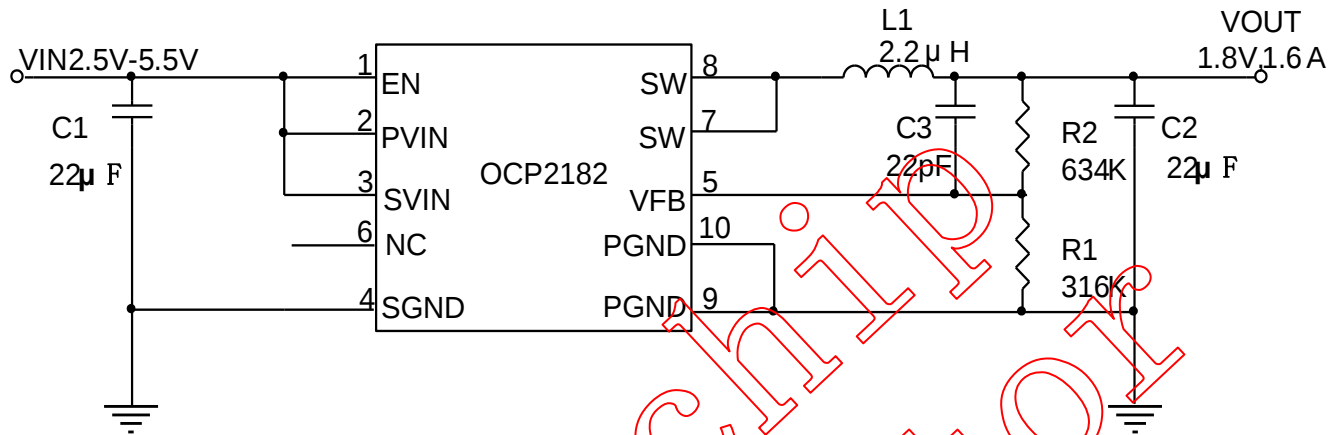


Figure 1 Basic Application Circuit with OCP2182 Adjusted Output Version

■ Ordering Information

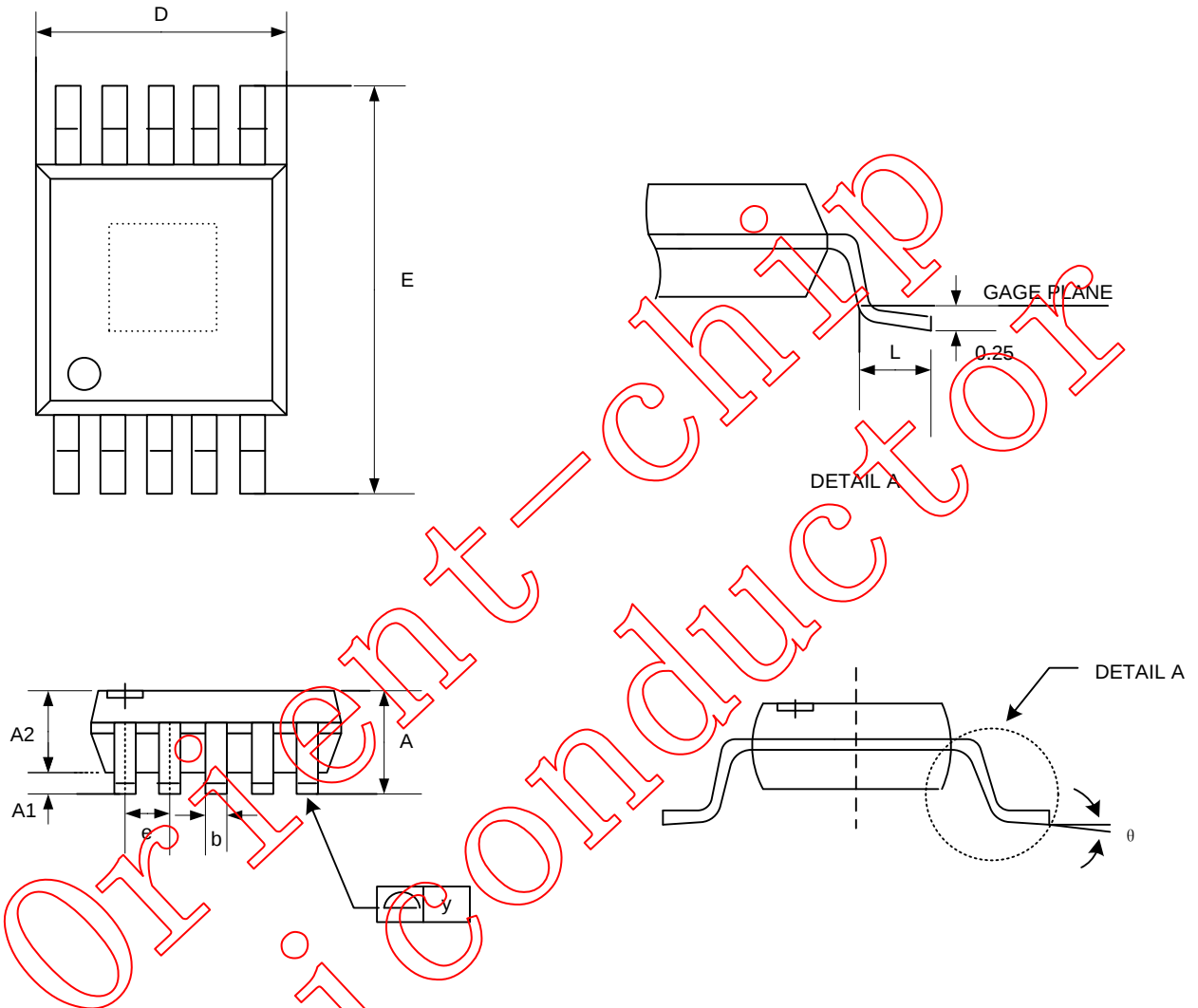
OCP2182XXXX			
Package:	Output Voltage:	Packing:	Temperature Grade:
MS: MSOP-10	Blank: ADJ	Blank: Tube or Bulk	D: -40~85℃
Q: DFN-16	10: 1.0V	A: Tape & Reel	
	12: 1.2V		
	15: 1.5V		
	18: 1.8V		



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■ Package Information

1) MSOP-10



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.10		0.0433
A1	0.05	0.15	0.0020	0.0060
A2	0.75	0.95	0.0295	0.0374
b	0.17	0.27	0.0067	0.0106
D	2.90	3.10	0.1142	0.1220
E	4.80	5.00	0.1890	0.1970
e	0.50BSC.		0.0197BSC.	
L	0.40	0.70	0.0157	0.0276
y		0.10		0.0039
θ	0°	6°	0°	6°

Contact Information:

For more detail information , please direct any inquiries and/or comments to info@orient-chip.com.

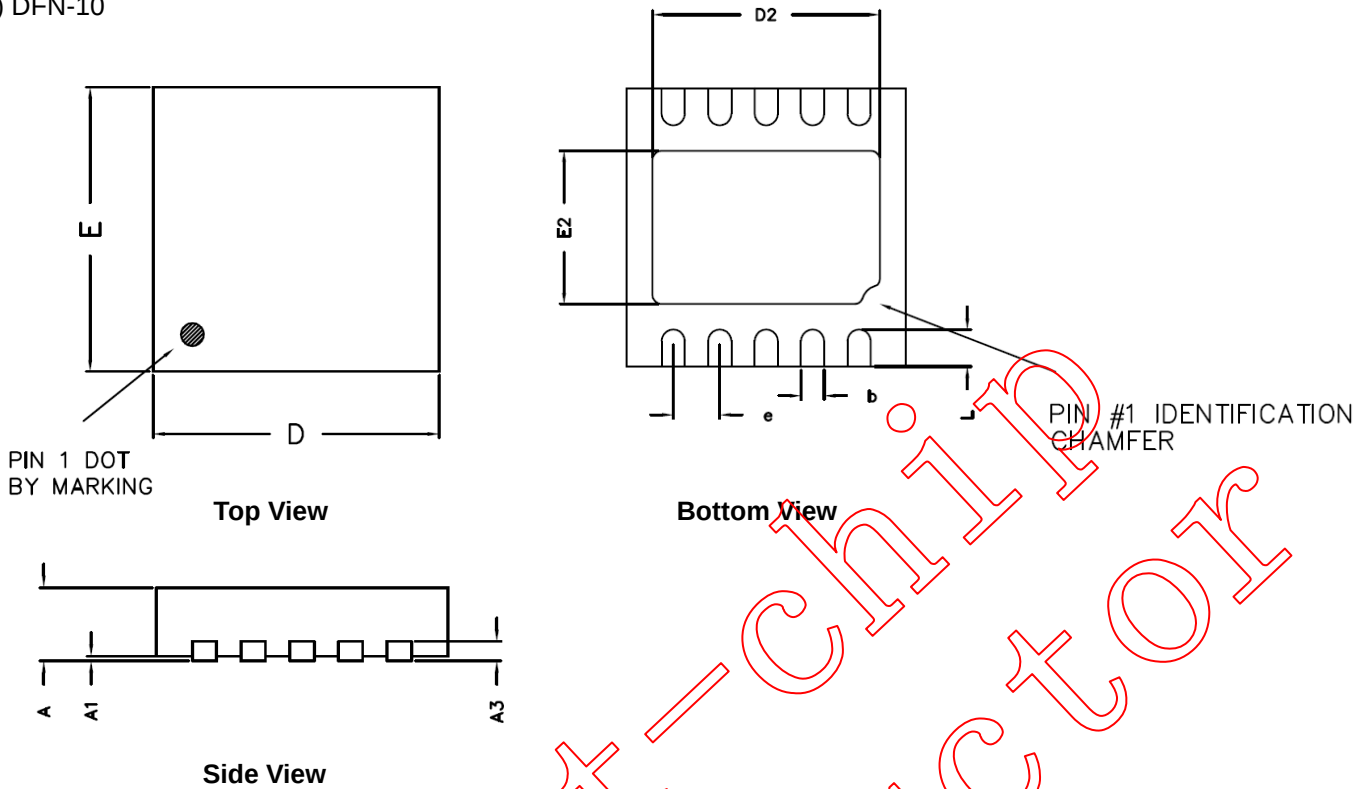


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OCP2182

1.5MHz, 1.6A Synchronous Step-Down DC-DC Converter

2) DFN-10



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.70	0.80	0.028	0.031
A1	0.00	0.05	0.000	0.002
A3	0.2REF		0.008REF	
D	2.95	3.05	0.116	0.120
E	2.95	3.05	0.116	0.120
b	0.18	0.30	0.007	0.012
L	0.30	0.50	0.012	0.020
D2	2.30	2.55	0.090	0.100
E2	1.50	1.75	0.059	0.069
e	0.50 BSC.		0.020BSC.	