

■ General Description

The OCP2153 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 OCP2153 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-lon (Li+) battery. It can supply 1.5A 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 OCP2153 is offered in small profile 6 -Lead DFN packages, and is available in an adjustable version and fixed output voltage of 1.2V,1.5V,1.8V and 3.3V.

Features

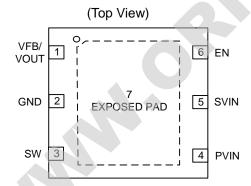
- High Efficiency: Up to 96%
- 1.5MHz Constant Switching Frequency
- 1.5A Output Current
- 2.5V to 5.5V Input Voltage Range
- Output Voltages from 0.6V to 5V
- Low RDS(ON) Internal Switches: 72mΩ(Typ.)
- Available in Fixed Output Voltages of 1.2V,1.5V,1.8V,3.3V and Adjustable Version
- Allow use of ceramic capacitors
- Current Mode Operation for excellent line and load transient Response
- Short-Circuit Protection
- Low Dropout Operation:100% Duty Cycle
- Low Shutdown Current: Ishutdown<1µA
- Small 6 -Lead DFN Packages

Applications

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

■ Pin Configuration

1) DFN-6

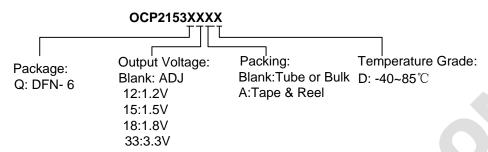


Pin Number	Pin Name	Pin Function
1	VFB/VOUT	Feedback Input Pin. It receives the feedback voltage from the external resistive divider across the output. Output voltage feedback Pin. An internal resistive divider divides the output voltage down for comparison to the internal reference voltage.
2	GND	Ground Pin
3	SW	Power Switch Output
4	PVIN	Power Supply Pin
5	SVIN	Signal Supply Pin
6	EN	Chip Enable ;EN=VIN, Enable; EN=GND, Disable
7	EXPOSED PAD	Power Ground. It must be connect to ground properly.



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

■ Ordering Information



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