1 Pin Configuration and Functionality

1.1 Pin Configuration with PG-DIP-7

1.2 Package PG-DIP-7

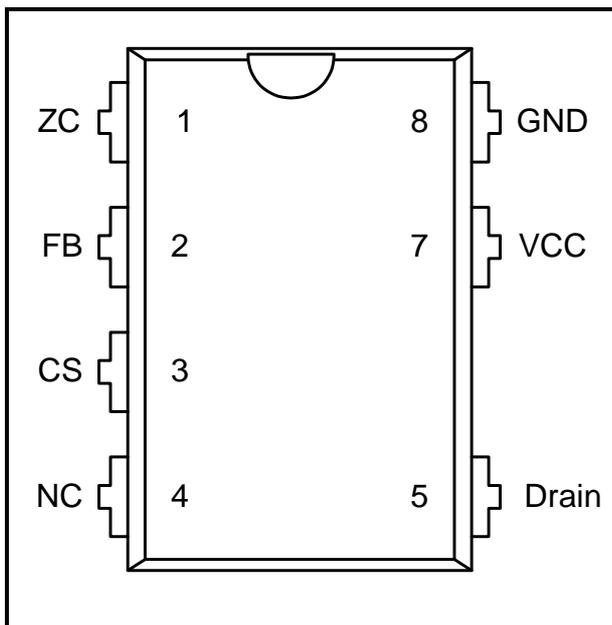| Pin	Symbol	Function
1	ZC	Zero crossing
2	FB	Feedback
3	CS	Current Sense
4	N.C.	Not Connected
5	Drain	800V CoolMOS® Drain
6	-	No Pin
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

Figure 1   Pin Configuration PG-DIP-7 (top view)

1.3 Pin Functionality

ZC (Zero Crossing)
At this pin, the voltage from the auxiliary winding after a time delay circuit is applied. Internally, this pin is connected to the zero-crossing detector for switch-on determination. Additionally, the output overvoltage detection is realized by comparing the voltage Vzc with an internal preset threshold.

FB (Feedback)
Normally, an external capacitor is connected to this pin for a smooth voltage V_{FB}. Internally, this pin is connected to the PWM signal generator for switch-off determination (together with the current sensing signal), the digital signal processing for the frequency reduction with decreasing load during normal operation, and the Active Burst Mode controller for entering Active Burst Mode operation determination and burst ratio control during Active Burst Mode operation. Additionally, the open-loop / over-load protection is implemented by monitoring the voltage at this pin.

CS (Current Sense)
This pin is connected to the external shunt resistor for the primary current sensing and the internal PWM signal generator for switch-off determination (together with the feedback voltage). Moreover, short-winding protection is realised by monitoring the voltage V_{cs} during on-time of the main power switch.

Drain (Drain of integrated CoolMOS®)
Drain pin is the connection to the drain of the internal CoolMOS®.

VCC (Power supply)
VCC pin is the positive supply of the IC. The operating range is between V_{VCCoff} and V_{VCCOVP}.

GND (Ground)
This is the common ground of the controller.