



# G1655CFP

## High Performance Current Mode PWM Controller

### 1. General Description

G1655CFP is a highly integrated Green Mode PWM control IC, it minimizes the component counts, circuit space, and reduces the overall material cost for the power applications.

The G1655CFP features green-mode power-saving operation, and internal slope compensation, soft-start functions to optimized high performance, low standby power consumption and wide output voltage range PD adapter solutions.

At full loading, the IC operates in fixed frequency mode. When the loading goes low, it operates in Green mode with valley switching for high power conversion efficiency. When the load is very small, the IC operates in Extended Burst Mode to minimize the standby power loss. As a result, high conversion efficiency can be achieved in the whole loading range.

G1655CFP offers complete protection coverage including cycle-by-cycle current limiting (OCP), over temperature protection (OTP), output short, output and VDD over voltage protection. Excellent EMI performance is achieved with proprietary frequency shuffling technique.

#### Applications

Offline AC/DC flyback converter for

- PD adapters
- Wide output range adapters
- Open Frame Switching Power Supply

#### Features

- ◆ Built-in High-Voltage Power MOS
- ◆ Ultra low operating current at light/no load
- ◆ Extended burst mode control for improved efficiency and low standby power
- ◆ 65KHz fixed frequency @ Full Load
- ◆ Valley switching operation @ Green mode
- ◆ Internal OCP compensation for universal line voltage
- ◆ Power on soft start reducing MOSFET Vds stress
- ◆ Audio noise free operation
- ◆ Protection Features
  - VDD UV lockout and Over voltage protection
  - Cycle-by-Cycle over current protection with auto-recovery
  - Output over voltage protection with latch shut down
  - Secondary rectifier diode open and short circuit protection with auto-recovery
  - Secondary winding Open and short circuit protection with auto-recovery
  - Output short protection (SCP) with auto-recovery
  - Over temperature protection (OTP) with latch shut down
  - Overload protection (OLP) with auto-recovery
- ◆ Pb-free SOP7

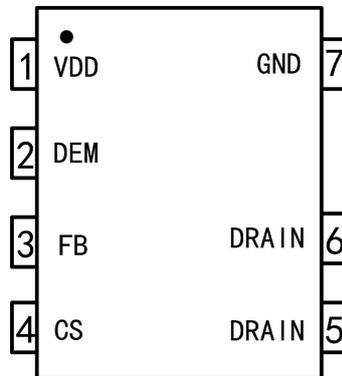


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## High Performance Current Mode PWM Controller

### 2. Products Information

#### 2.1 Pin configuration



SOP7 Package

Fig.1. G1655CFP Pin Configuration

Pin Name	I/O	Description
GND	P	Ground.
FB	I	Feedback input pin.By connecting an opto-coupler to close the control loop and achieve the regulation.
DEM	I	Functions pin.Connecting two resistors from Vaux to ground can adjust output OVP trigger voltage and output undervoltage trigger voltage.
CS	I	Current sense input,connect it to sense the MOSFET current.
VDD	P	Power Supply.
DRAIN	O	HV MOSFET Drain Pin. The Drain pin is connected to the primary lead of the transformer