



PM6675A

High efficiency step-down controller with embedded 2A LDO regulator

Target Specification

Features switching

- Switching section
 - 4.5V to 36V input voltage range
 - 0.6V, $\pm 1\%$ voltage reference
 - Selectable 1.5V fixed output voltage
 - Adjustable 0.6V to 3.3V output voltage
 - 1.237V $\pm 1\%$ reference voltage available
 - Very fast load transient response using constant-on-time control loop
 - No R_{SENSE} current sensing using low side MOSFETs' $R_{DS(ON)}$
 - Negative current limit
 - Latched OVP and UVP
 - Soft start internally fixed at 3ms
 - Selectable pulse skipping at light load
 - Selectable No-Audible (33KHz) pulse skip mode
 - Ceramic output capacitors supported
 - Output voltage ripple compensation
 - Output soft-end
- LDO regulator section
 - Adjustable 0.6V to 2.5V output voltage
 - Selectable $\pm 1A_{pk}$ or $\pm 2A_{pk}$ current limit
 - Dedicated power-good signal
 - Ceramic output capacitors supported
 - Output soft-end

Applications

- Industrial application on 24V
- Graphic cards
- Embedded computer systems



Description

The PM6675A device consists of a single high efficiency step-down controller and an independent Low Drop-Out (LDO) linear regulator.

The Constant On-Time (COT) architecture assures fast transient response supporting both electrolytic and ceramic output capacitors. An embedded integrator control loop compensates the DC voltage error due to the output ripple.

Selectable low-consumption mode allows the highest efficiency over a wide range of load conditions. The low-noise mode sets the minimum switching frequency to 33kHz for audio-sensitive applications. The LDO linear regulator can sink and source up to 2A_{pk}. Two fixed current limit ($\pm 1A$ - $\pm 2A$) can be chosen.

An active Soft-End is independently performed on both the switching and the linear regulators outputs when disabled.

Order codes

Part number	Package	Packaging
PM6675A	VFQFPN-24 4x4 (Exposed Pad)	Tube

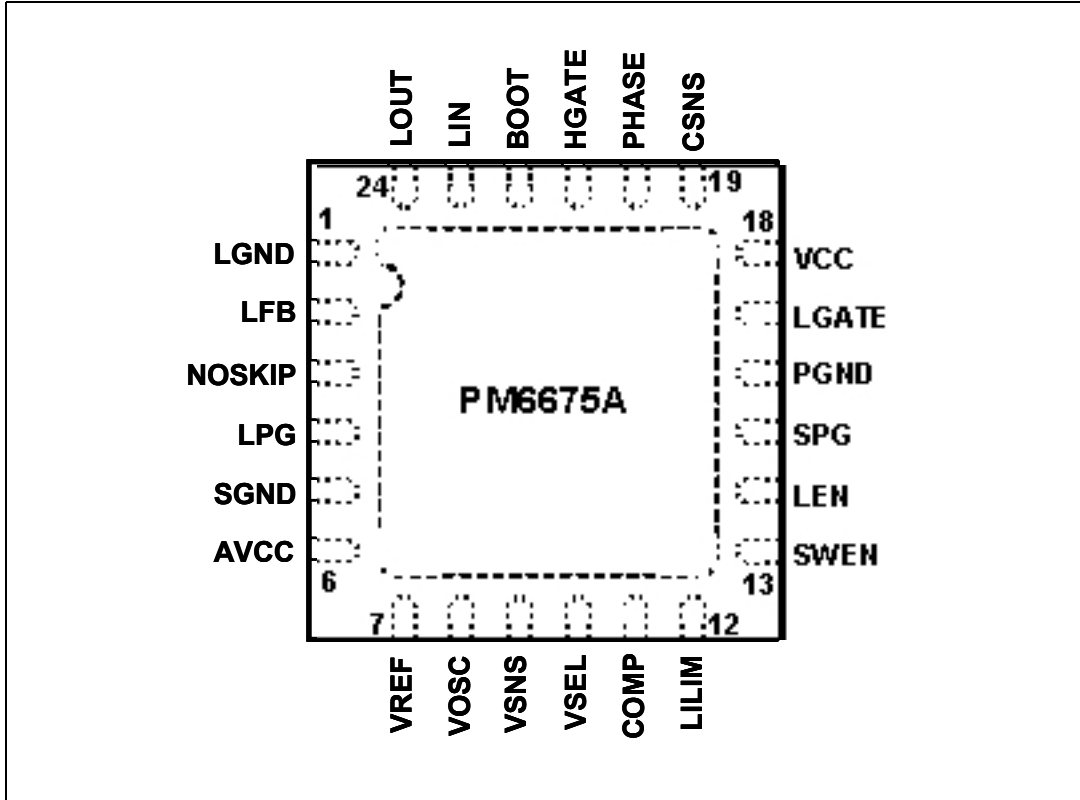
Contents

1	Typical application circuit	3
2	Pin settings	4
2.1	Connections	4
2.2	Pin description	5
3	Electrical data	7
3.1	Maximum rating	7
3.2	Thermal data	7
4	Electrical characteristics	8
5	Block diagram	11
6	Package mechanical data	12
7	Revision history	14

2 Pin settings

2.1 Connections

Figure 2. Pin connection (through top view)



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