

POWER MANAGEMENT CHIPSET FOR 3-PHASE VRM 9.0 CONVERTERS

FEATURES

- Complete VRM 9.0 chipset for a 3-phase Buck converter capable of up to 60A
- Optimized chipset for easy design of high current multiphase DC-DC converters complying with the VRM 9.0 specification
- HEXFET® MOSFETs for the control and synchronous FET socket

APPLICATIONS

- Intel Pentium 4 and AMD K7 CPU Power
- Low voltage/high current DC to DC converters

DESCRIPTION

The IRUK3055CQ01 is a complete power management chipset solution that meets Intel's VRM 9.0 specifications for CPU power. The chipset consists of the IRU3055CQ 3-phase PWM IC and matching control (IRF3704S) and synchronous MOSFETs (IRF3711S).

The IRUK3055CQ01TR chipset simplifies procurement of power MOSFETs and multi-phase, synchronous PWM ICs to reduce design time of high current DC-DC converters for CPU power. When used in a 3-phase DC-DC converter design, the IRUK3055CQ01TR chipset can provide up to 60A for microprocessor V_{CORE} requirements.

CHIPSET CONTENTS

Each IRUK3055CQTR chipset contains:

PART #	DESCRIPTION	PACKAGE	QTY
IRU3055CQ	5-Bit Programmable 3-Phase Synchronous PWM IC	36-Pin QSOP	1
IRF3704S	20VN Control MOSFET, 9mΩ (Max)	D ² Pak	3
IRF3711S	20VN Synchronous MOSFET, 6.5mΩ (Max)	D ² Pak	3

Note: Click on the part numbers in the table above to link to individual datasheets. You may also use the part search engine on www.irf.com to access the datasheets of the individual parts.

ORDER INFORMATION

PART #	DESCRIPTION	STANDARD PACK
IRUK3055CQ01TR	VRM 9.0 Power Chipset in Tape and Reel	1600
IRUK3055CQ01	VRM 9.0 Power Chipset in Bulk	1

TYPICAL APPLICATION CIRCUIT

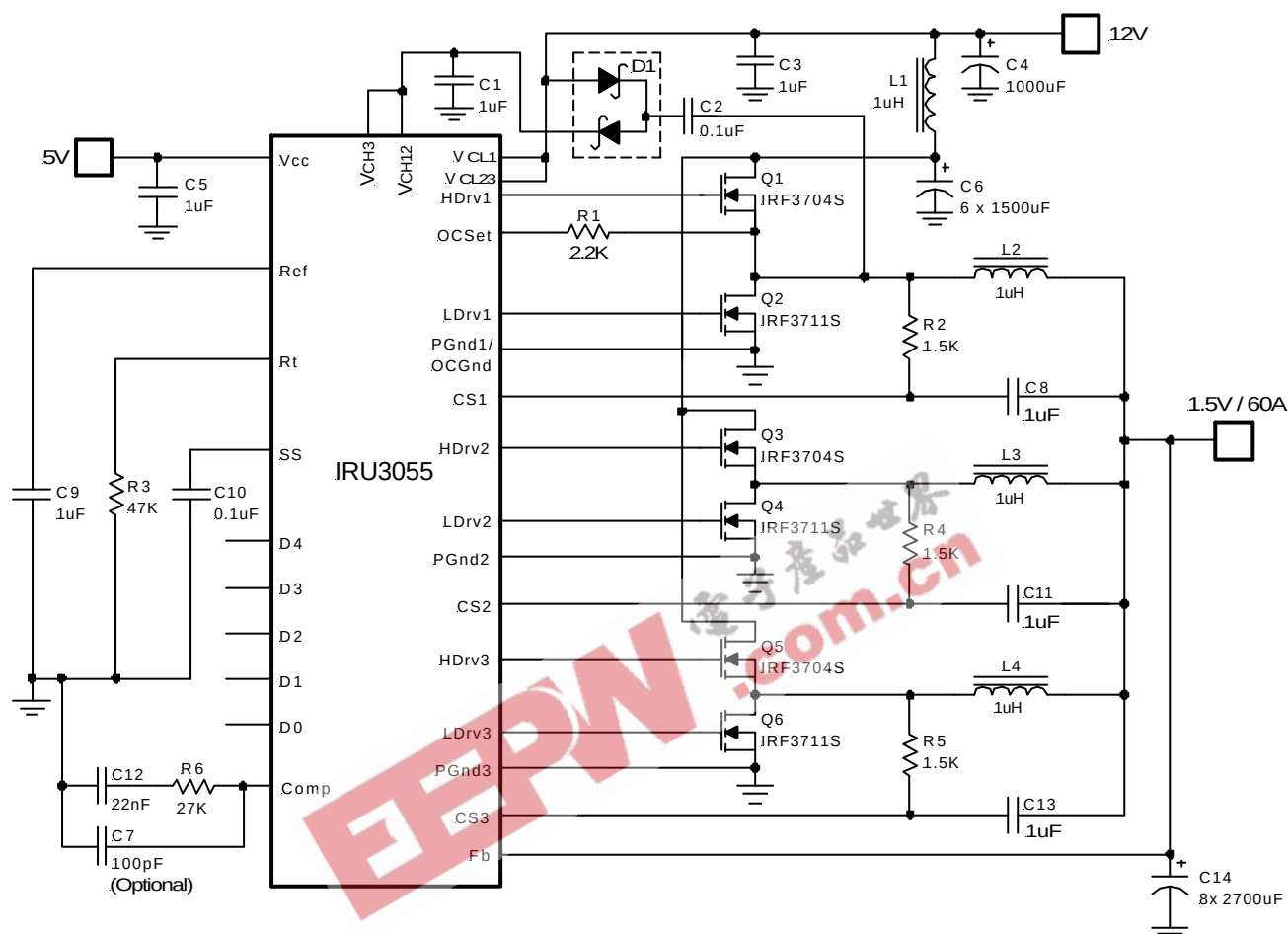


Figure 1 - Application circuit of a 3-phase Buck converter using the IRUK3055CQ01TR chipset.

V_{OUT} = 1.5V @ 60A