

Pb-Free 1-ph PWM Controller with 1 integrated drivers, 32ld HT SUS4
 CODE:8542390000

Manufacturers	Renesas Technology Corp
Package/Case	32-LD-QFN
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ISL6314CRZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ISL6314 single-phase PWM control IC provides a precision voltage regulation system for advanced microprocessors. This controller IC maintains the same features as the multi-phase product family, but reduces the output to a single-phase, for lower current systems. By reducing the number of external parts, this integration is optimized for a cost and space saving power management solution. One outstanding feature of this controller IC is its multiprocessor compatibility, allowing it to work with both Intel and AMD microprocessors. Included are programmable VID codes for Intel VR11 as well as AMD 5-bit and 6-bit DAC tables. A circuit is provided for remote voltage sensing, compensating for any potential difference between remote and local grounds. The output voltage can also be positively or negatively offset through the use of a single external resistor. Another unique feature of the ISL6314 is the addition of a circuit that allows optimizing compensation to be added for flatter load transient response and well controlled dynamic VID response. The ISL6314 also includes advanced control loop features for optimal transient response to load apply and removal. One of these features is highly accurate, fully differential, continuous DCR current sensing for load line programming. Active Pulse Positioning (APP) and Adaptive Phase Alignment (APA) are two other unique features, allowing for quicker initial response to high di/dt load transients; the number of output bulk capacitors can be reduced, helping to reduce cost. Protection features of this controller IC include a set of sophisticated overvoltage, undervoltage, and overcurrent protection. Furthermore, the ISL6314 includes protection against an open circuit on the remote sensing inputs. Combined, these features provide advanced protection for the microprocessor and power system.

Features

Integrated-driver Single-Phase Power Conversion

Precision Core Voltage Regulation

Differential Remote Voltage Sensing

±0.5% System Accuracy Over-Temperature

Adjustable Reference-Voltage Offset

Optimal Transient Response

Adaptive Phase Alignment (APA)

Active Pulse Positioning (APP) Modulation

Fully Differential, Continuous DCR Current Sensing

Accurate Load Line Programming

Variable Gate Drive Bias: 5V to 12V

Multi-Processor Compatible

Intel VR11 Mode of Operation

AMD Mode of Operation

Microprocessor Voltage Identification Inputs

8-Bit DAC

Selectable between Intel VR11, AMD 5-bit, and AMD 6-bit DAC tables

Dynamic VID Technology

Overcurrent Protection

Multi-tiered Overvoltage Protection

Digital Soft-Start

Selectable Operation Frequency up to 1.0MHz

Pb-free plus anneal available (RoHS compliant)



Related Products



[ISL6262ACRZ](#)

Renesas Technology Corp
QFN-48



[ISL21080CIH315Z-TK](#)

Renesas Technology Corp
SOT-23-3



[ISL6377HRZ-T](#)

Renesas Technology Corp
QFN-48



[ISL62771HRTZ](#)

Renesas Technology Corp
QFN40



[ISL6294IRZ-T](#)

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QFN-8



[ISL6506BCBZ](#)

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[ISL62771HRTZ-T](#)

Renesas Technology Corp
40-WFQFN Exposed Pad



[ISL95808HRZ-T](#)

Renesas Technology Corp
DFN-8