
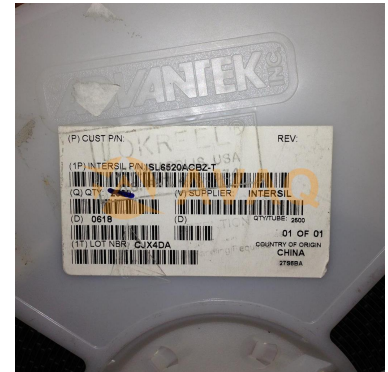


**Voltage Mode PWM Controller 0.8V to 5V 2A 340kHz 8-Pin
SOIC N T/R**

Manufacturer:	Renesas Technology Corp
Package/Case:	SOP8
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The ISL6520A makes simple work out of implementing a complete control and protection scheme for a DC/DC stepdown converter. Designed to drive N-Channel MOSFETs in a synchronous buck topology, the ISL6520A integrates the control, output adjustment, monitoring and protection functions into a single 8 Lead package. The ISL6520A provides simple, single feedback loop, voltage-mode control with fast transient response. The output voltage can be precisely regulated to as low as 0.8V, with a maximum tolerance of $\pm 1.5\%$ over-temperature and line voltage variations. A fixed frequency oscillator reduces design complexity, while balancing typical application cost and efficiency. The error amplifier features a 15MHz gain-bandwidth product and 8V/ms slew rate which enables high converter bandwidth for fast transient performance. The resulting PWM duty cycles range from 0% to 100%. Protection from overcurrent conditions is provided by monitoring the rDS(ON) of the upper MOSFET to inhibit PWM operation appropriately. This approach simplifies the implementation and improves efficiency by eliminating the need for a current sense resistor.

Key Features

Operates from +5V Input

0.8V to VIN Output Range

0.8V Internal Reference

Drives N-Channel MOSFETs

Simple Single-Loop Control Design

Voltage-Mode PWM Control

Fast Transient Response

High-Bandwidth Error Amplifier

Full 0% to 100% Duty Cycle

Lossless, Programmable Overcurrent Protection

Uses Upper MOSFET's $r_{DS(ON)}$

Small Converter Size

300kHz Fixed Frequency Oscillator

Internal Soft-Start

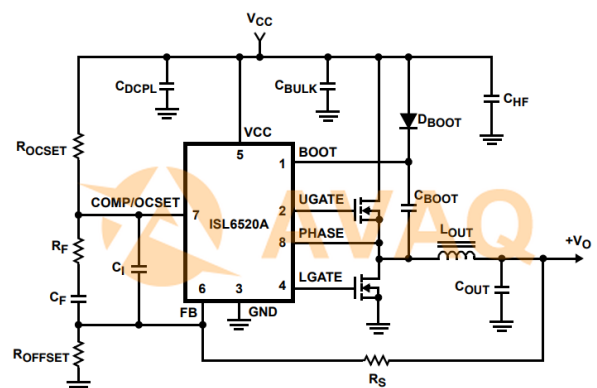
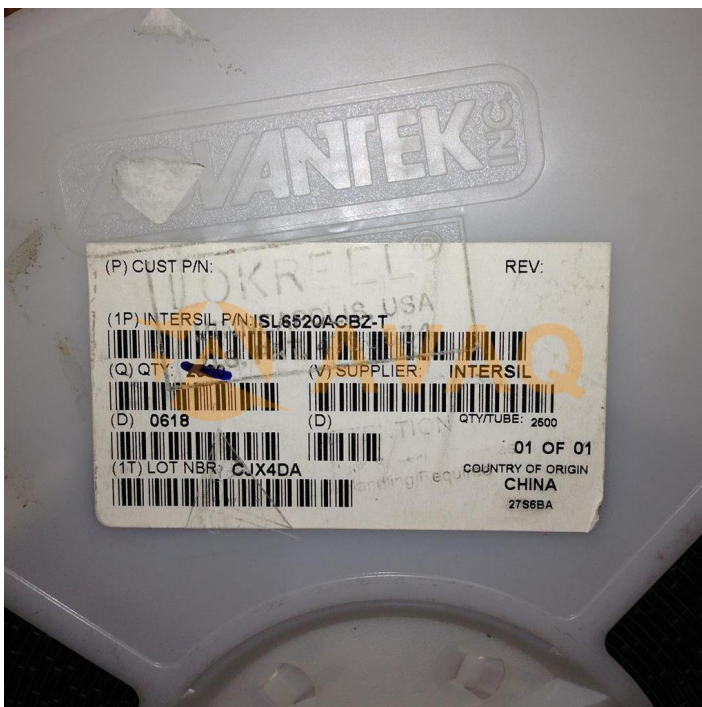
8 Ld SOIC or 16 Ld 4mmx4mm QFN

QFN Package:

Compliant to JEDEC PUB95 MO-220 QFN - Quad Flat No Leads - Package Outline

Near Chip Scale Package footprint, which improves PCB efficiency and has a thinner profile

Pb-Free (RoHS Compliant)



Recommended For You

ISL83202IBZ

Renesas Technology Corp
SOP16

ISL9492ERZ

Renesas Technology Corp
QFN

ISL62883CHRTZ

Renesas Technology Corp
QFN

ISL95836HRTZ-T

Renesas Technology Corp
QFN40

ISL95837HRZ-T

Renesas Technology Corp
QFN40

ISL95837HRZ

Renesas Technology Corp
QFN40

ISL9301HRZ

Renesas Technology Corp
DFN10

ISL95835HRZ

Renesas Technology Corp
QFN

ISL95812HRZ

Renesas Technology Corp
QFN

ISL95870HRUZ-T

Renesas Technology Corp
QFN16

ISL6521HBZ

Renesas Technology Corp
SOP16

ISL62882CHRTZ

Renesas Technology Corp
QFN

ISL95870BIRZ-T

Renesas Technology Corp
QFN20

ISL78214ARZ

Renesas Technology Corp
QFN

ISL88739HRZ

Renesas Technology Corp
QFN