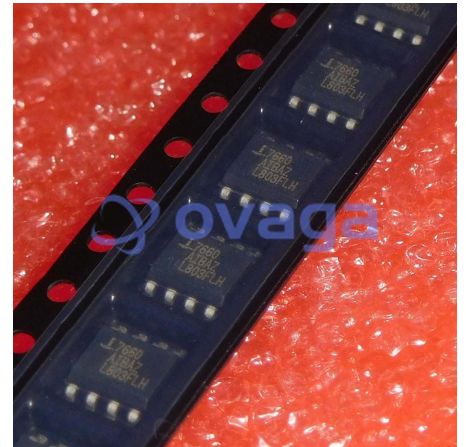


Charge Pump INV/STPUP/STPDN -1.5V to -12V/1.5V to 22.8V 45mA 8-Pin SOIC N Tube

Manufacturers	Renesas Technology Corp
Package/Case	SOIC-8
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ICL7660AIBAZA or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ICL7660S and ICL7660A Super Voltage Converters are monolithic CMOS voltage conversion ICs that guarantee significant performance advantages over other similar devices. They are direct replacements for the industry standard ICL7660 offering an extended operating supply voltage range up to 12V, with lower supply current. A Frequency Boost pin has been incorporated to enable the user to achieve lower output impedance despite using smaller capacitors. All improvements are highlighted in the “Electrical Specifications” section on page 3 of the datasheet. Critical parameters are guaranteed over the entire commercial and industrial temperature ranges. The ICL7660S and ICL7660A perform supply voltage conversions from positive to negative for an input range of 1.5V to 12V, resulting in complementary output voltages of -1.5V to -12V. Only two non-critical external capacitors are needed, for the charge pump and charge reservoir functions. The ICL7660S and ICL7660A can be connected to function as a voltage doubler and will generate up to 22.8V with a 12V input. They can also be used as a voltage multipliers or voltage dividers. Each chip contains a series DC power supply regulator, RC oscillator, voltage level translator, and four output power MOS switches. The oscillator, when unloaded, oscillates at a nominal frequency of 10kHz for an input supply voltage of 5.0V. This frequency can be lowered by the addition of an external capacitor to the “OSC” terminal, or the oscillator may be over-driven by an external clock. The “LV” terminal may be tied to GND to bypass the internal series regulator and improve low voltage (LV) operation. At medium to high voltages (3.5V to 12V), the LV pin is left floating to prevent device latchup. In some applications, an external Schottky diode from VOUT to CAP- is needed to guarantee latchup free operation (see Do’s and Dont’s section on page 8 of the datasheet).

Features

Guaranteed Lower Max Supply Current for All Temperature Ranges

Wide Operating Voltage Range: 1.5V to 12V

100% Tested at 3V

Boost Pin (Pin 1) for Higher Switching Frequency

Guaranteed Minimum Power Efficiency of 96%

Improved Minimum Open Circuit Voltage Conversion Efficiency of 99%

Improved SCR Latchup Protection

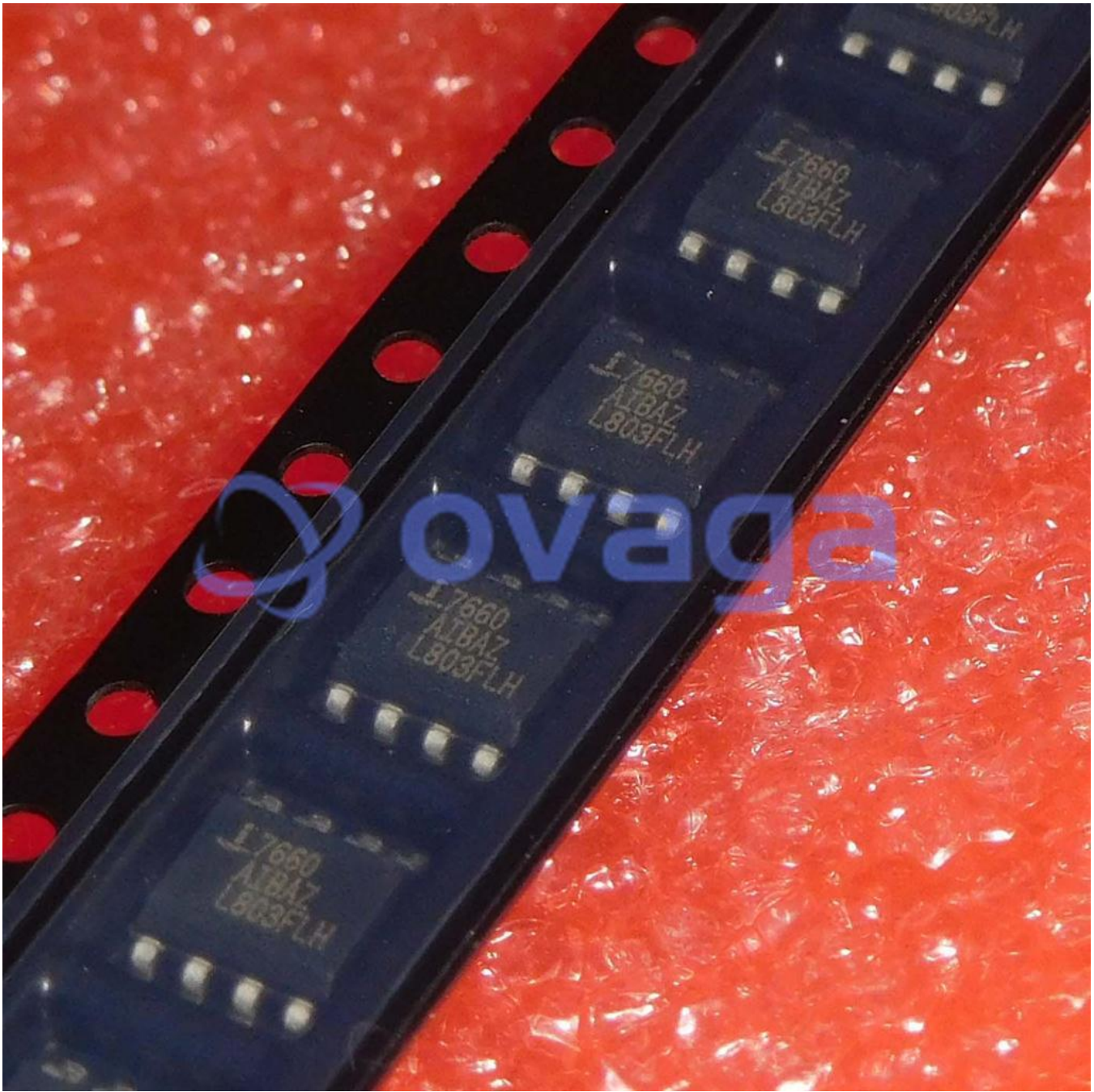
Simple Conversion of +5V Logic Supply to $\pm 5V$ Supplies

Simple Voltage Multiplication $>IN$

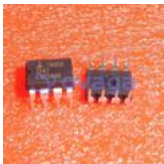
Easy to Use; Requires Only Two External Non-Critical Passive Components

Improved Direct Replacement for Industry Standard ICL7660 and Other Second Source Devices

Pb-Free Available (RoHS Compliant)



Related Products



[ICL7660SIPAZ](#)

Renesas Technology Corp
PDIP-8



[ICL7667CPA](#)

Renesas Technology Corp
PDIP-8



[ICL7665SAIBAZA-T](#)

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SOIC-8N