

Press Release

New Voltage Regulator Series S-1172

High Output current,	1000mA
High Ripple Rejection,	70dB
Super Low Dropout Voltage,	70mV typ.

The new Voltage Regulator Series 1172 has been released by Seiko Instruments

Outstanding Feature of this new line of CMOS Voltage Regulators is besides its very Low-Drop-Out Voltage of 70mV, the for this technology, extraordinarily high output current of 1000mA, only limited by the power dissipation capability of the involved package*1. Available are SOT-89-5 and HSOP-6 packages.

Damages to the regulator are prevented by an over-current protection circuit with voltage fold-back characteristics.

A thermal shutdown circuit will avoid damages caused by excessive heat and dangerous inrush currents are controlled by an inrush current limiter.

High Ripple Rejection of 70dB insures that even dramatic input voltage transients or sudden load changes are virtually not appearing in the regulated output voltage.

The Super Low Dropout Voltage of 70mV typ., (@ $V_{out} = 3.0V$, $I_{out} = 300mA$) permits the use of batteries down to their absolute discharge limit. Achieved is this extreme low Input- Output- Voltage difference by an built-in controlling transistor with very low $r_{DS(ON)}$.

The internal power consumption of 70 μA typ. may be reduced to a stand-by current of 0.1 μA with the use of the available ON/OFF Input, another feature to increase battery life time remarkably.

Small ceramic capacitors with typical 4.7 μF or more, used at input and output will provide reliable frequency compensation.

The $\pm 1\%$ accuracy of the output voltage is almost voltage reference quality.

Input voltage range is 1.5V to 5.5V. Output Voltages may be selected from 1.0V to 5.0V.

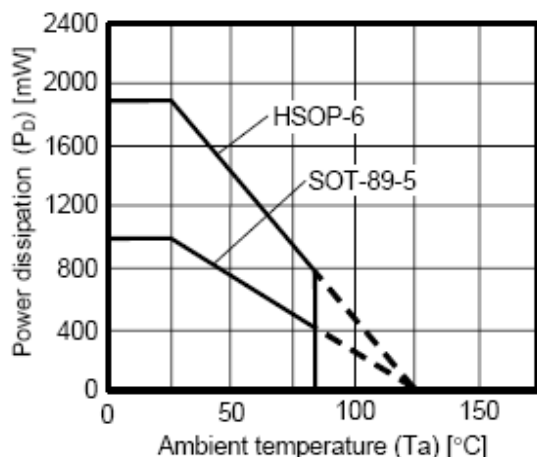
Applications:

Battery powered voltage supplies

Power supplies for TV-sets, Notebooks, and home and kitchen appliance

Constant voltage sources for portable Devices

*1 Power dissipation capability of available packages SOT-89-5, HSOP-6,



Power Dissipation of Package (When Mounted on Board)

Seiko Instruments GmbH
Package images and pin configuration

■ Pin Configuration

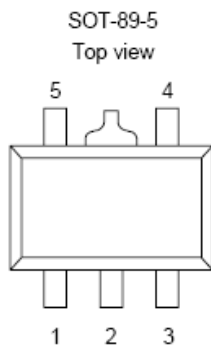


Figure 2

Table 2

Pin No.	Symbol	Description
1	ON/OFF	Shutdown pin
2	VSS	GND pin
3	NC*1	No connection
4	VIN	Input voltage pin
5	VOUT	Output voltage pin

*1. The NC pin is electrically open.
 The NC pin can be connected to VIN or VSS.

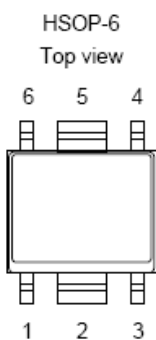


Figure 3

Table 3

Pin No.	Symbol	Description
1	VOUT	Output voltage pin
2	VSS	GND pin
3	ON/OFF	Shutdown pin
4	NC*1	No connection
5	VSS	GND pin
6	VIN	Input voltage pin

*1. The NC pin is electrically open.
 The NC pin can be connected to VIN or VSS.

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