

# DATA SHEET

Part No.	AN30071A
Package Code No.	HZIP007-P-0750A

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# AN30071A

## 3 A, step-down or inverting DC-DC converter

### ■ Overview

AN30071A is a DC-DC converter which can be configured for step-down or inverting applications with a 3 A internal switch. The operating input voltage is between 4.5 V to 27 V.

### ■ Features

- Output voltage adjustable with  $\pm 4\%$  accuracy.
- Internal switching frequency is fixed at 150 kHz.
- Standby function available with one external transistor.
- Thermal shut-down protection.
- Pulse-by-pulse over-current protection.
- Short circuit protection.
- Soft-start function.
- Under-voltage-lockout function.

### ■ Applications

- For LCD, home theater, DVD player

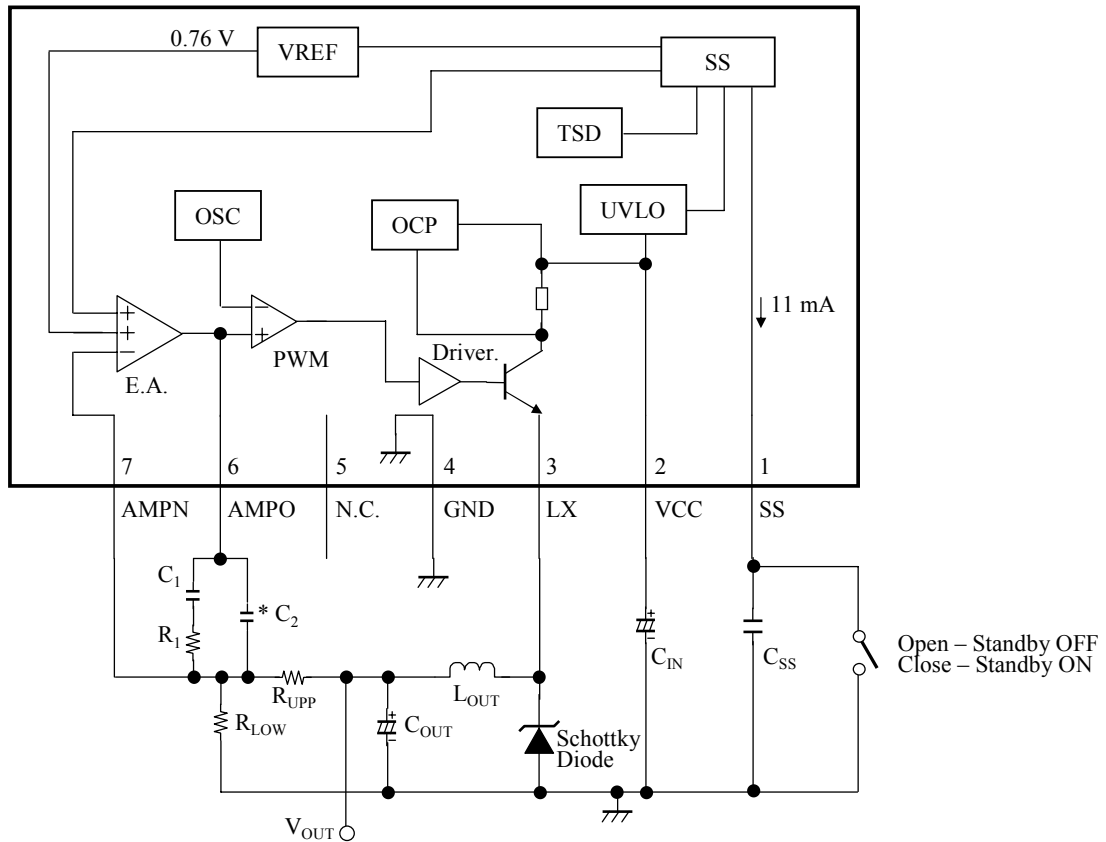
### ■ Package

- 7-pin plastic zigzag inline package with heat sink (ZIP type)

### ■ Type

- Silicon monolithic bipolar IC

■ Block Diagram (Application Circuit Example)



Note) \*:  $C_2$  is optional.

■ Pin Descriptions

Pin No.	Pin name	Type	Description
1	SS	—	Soft-start pin with standby function
2	VCC	Power Supply	Power supply input for IC
3	LX	Output	Power transistor emitter, switching node
4	GND	Ground	Ground
5	N.C.	—	No connection
6	AMPO	Output	Error amp output
7	AMPN	Input	Error amp negative input Negative feedback

### ■ Absolute Maximum Ratings

A No.	Parameter	Symbol	Rating	Unit	Note
1	Supply voltage	$V_{CC}$	30.5	V	*1
2	Supply current	$I_{CC}$	3	A	*2
3	Power dissipation	$P_D$	976	mW	*3
4	Operating ambient temperature	$T_{opr}$	-30 to +85	°C	*4
5	Storage temperature	$T_{stg}$	-50 to +150	°C	*4

Note) \*1: The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.

\*2: Without  $P_d$  and ASO constraint.

\*3: The power dissipation shown is the value at  $T_a = 85^\circ\text{C}$  for the independent (unmounted) IC package without heat sink.

\*4: Except for the power dissipation, operating ambient temperature and storage temperature, all ratings are for  $T_a = 25^\circ\text{C}$ .

### ■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Supply voltage range	$V_{CC}$	4.5 to 27	V	*

Note) \*: The values under the condition not exceeding the above absolute maximum ratings and the power dissipation.

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