

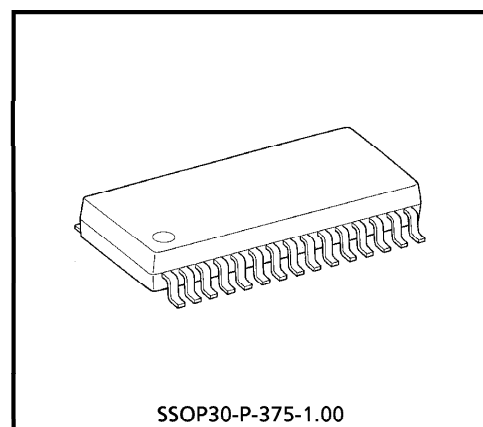
# TA8696F

## $\gamma$ CORRECTION IC FOR LCD TV

TA8696F operates with a power supply voltage of 3.3~7.5 V and can be directly driven with a dry battery.

### FEATURES

- Enables high-precision  $\gamma$  correction using logarithmic compression.
- $\gamma$  correction for Normally White LCD panel is possible.
- Offset/Cancel input circuit enables high-quality  $\gamma$  correction without distorting the primary color input signals.
- Cut-off voltage and drive voltage can be independently controlled.
- Unsusceptible to negative effects of fluctuation of power supply voltage.
- Either Latch Mode or Through Mode can be selected using the CH display mode switching pin.

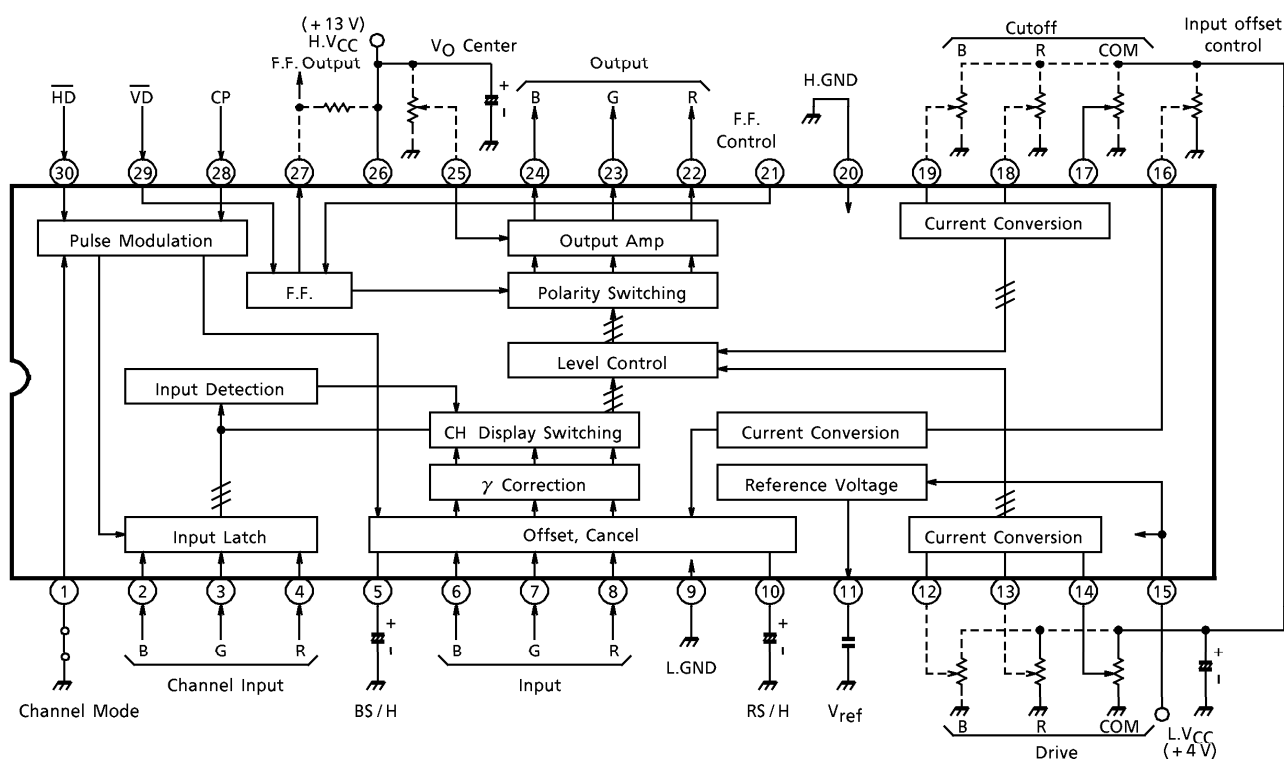


Weight : 0.63 g (Typ.)

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## BLOCK DIAGRAM



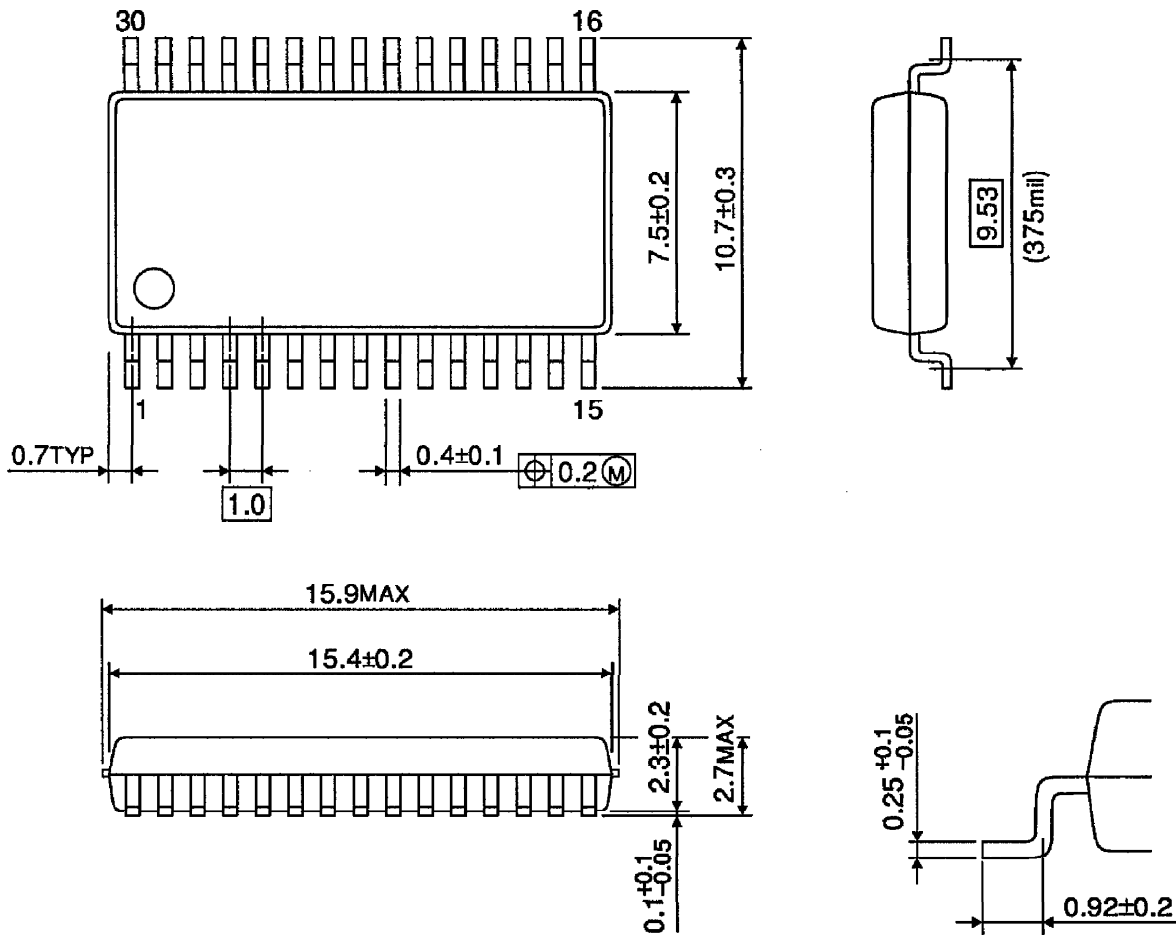
## PIN FUNCTION

PIN No.	PIN NAME	REFERENCE VOLTAGE (V)	REFERENCE CURRENT (mA)	FUNCTION
1	Mode Switch	0	0	CH display mode switching (Latch Mode / Through Mode)
2	CH B Input	0	0	CH display signal blue input
3	CH G Input	0	0	CH display signal green input
4	CH R Input	0	0	CH display signal red input
5	BS / H	1.6	0	Blue input signal sample and hold capacitor
6	B Input	1.6	0	Blue primary color input
7	G Input	1.6	0	Green primary color input
8	R Input	1.6	0	Red primary color input
9	L.GND	0	- 8.1	Low-voltage signal GND
10	RS / H	1.6	0	Red input signal sample and hold capacitor
11	V <sub>ref</sub>	1.6	0	Internal reference voltage
12	B Drive	2	0	B-axis drive control
13	R Drive	2	0	R-axis drive control
14	COM Drive	2	0	Common drive control
15	L.V <sub>CC</sub>	4.0	8.1	Low-voltage signal V <sub>CC</sub>
16	$\gamma$ Offset	2	0	$\gamma$ correction starting point control
17	COM Cut-off	2	0	Common cut-off control
18	R Cut-off	2	0	R-axis cut-off control
19	B Cut-off	2	0	B-axis cut-off control
20	H.GND	0	- 4.6	High-voltage signal
21	F.F. CONT.	1.4	—	—
22	R Output	6.5	0	Red signal input
23	G Output	6.5	0	Green signal input
24	B Output	6.5	0	Blue signal input
25	V <sub>O</sub> Center	6.5	0	Signal output center voltage control
26	H.V <sub>CC</sub>	13.0	4.6	High-voltage signal V <sub>CC</sub>
27	F.F. Output	0.2	0	Flip-flop output
28	CP	0.9	0	Clamp pulse input
29	VD	1.4	0	Vertical drive pulse input
30	HD	0.9	0	Horizontal drive pulse input

(Note) : Reference voltage and reference current are for DC bias with no signal.  
The current which flows into the IC considered to be positive current.

PACKAGE DIMENSIONS  
SSOP30-P-375-1.00

Unit : mm



Weight : 0.63 g (Typ.)