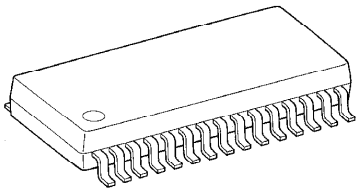
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8696F

γ 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.



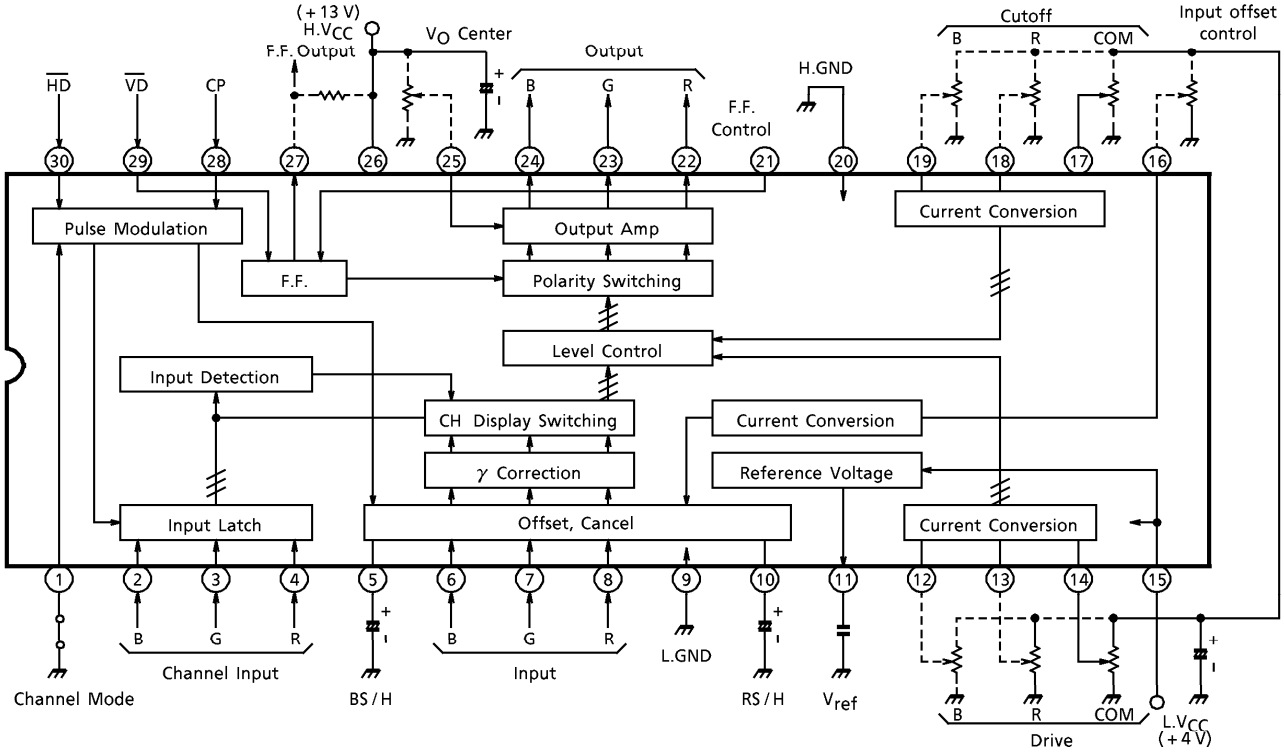
SSOP30-P-375-1.00

Weight : 0.63 g (Typ.)

FEATURES

- Enables high-precision γ correction using logarithmic compression.
- γ correction for Normally White LCD panel is possible.
- Offset / Cancel input circuit enables high-quality γ 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.

BLOCK DIAGRAM



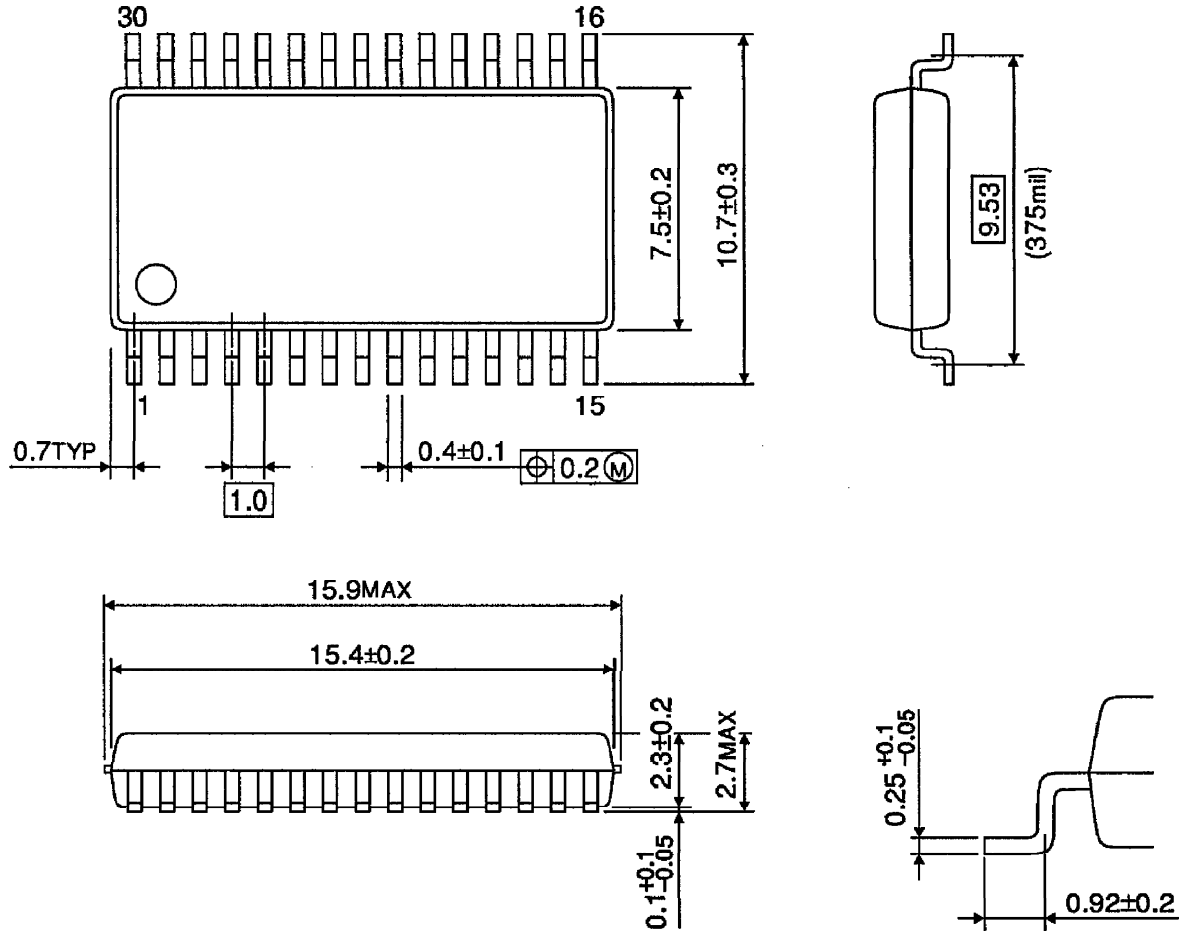
PIN FUNCTION

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_{ref}	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_{CC}	4.0	8.1	Low-voltage signal V_{CC}
16	γ Offset	2	0	γ 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_O Center	6.5	0	Signal output center voltage control
26	H.V_{CC}	13.0	4.6	High-voltage signal V_{CC}
27	F.F. Output	0.2	0	Flip-flop output
28	CP	0.9	0	Clamp pulse input
29	$\overline{VD}$	1.4	0	Vertical drive pulse input
30	$\overline{HD}$	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.)