

VERTICAL DEFLECTION OUTPUT CIRCUIT FOR COLOR TELEVISION

The KIA8445K is a power amplifier for driving a deflection circuit of a middle and large screen size color television.

The KIA8445K combines the vertical output circuit and the Ramp-generator in a 12 pin shrink SSIP plastic package.

The KIA8445K requires only vertical deflection positive pulse for vertical operation.

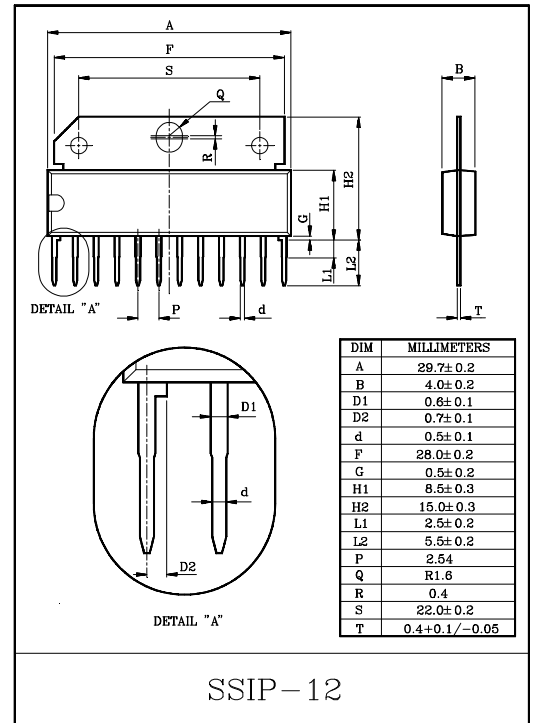
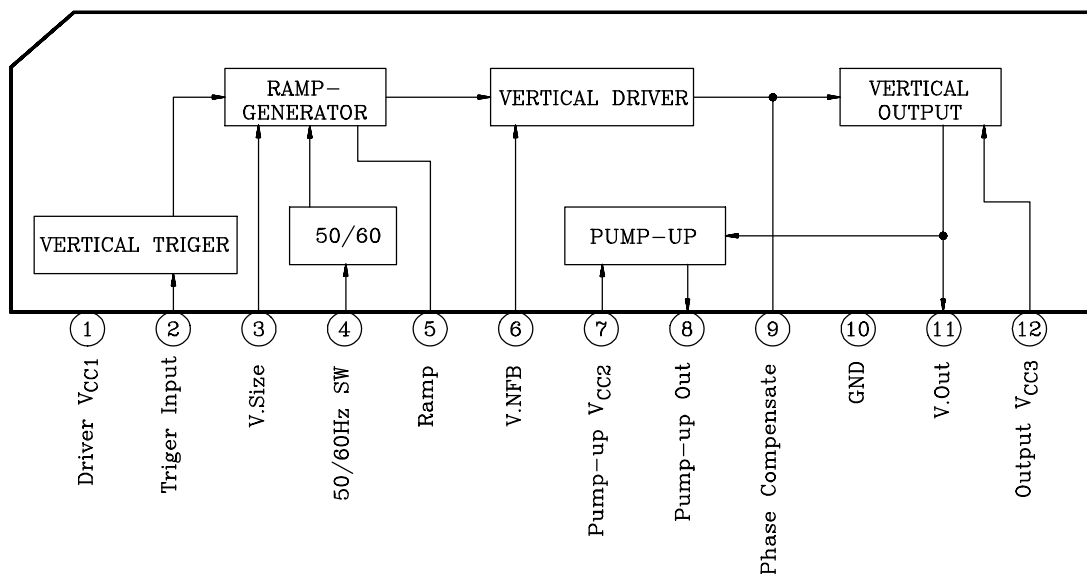
FEATURES

- Large output current : $2.2A_{P-P}$ (Max.)
- Built-in ramp-generator circuit.
- Built-in V.Driver circuit.
- 50/60Hz sw circuit.
- Small power dissipation with a Pump-up circuit
- Vertical output circuit.
- Small number of external parts.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

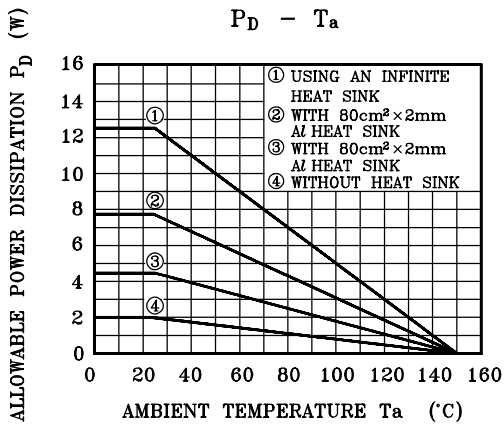
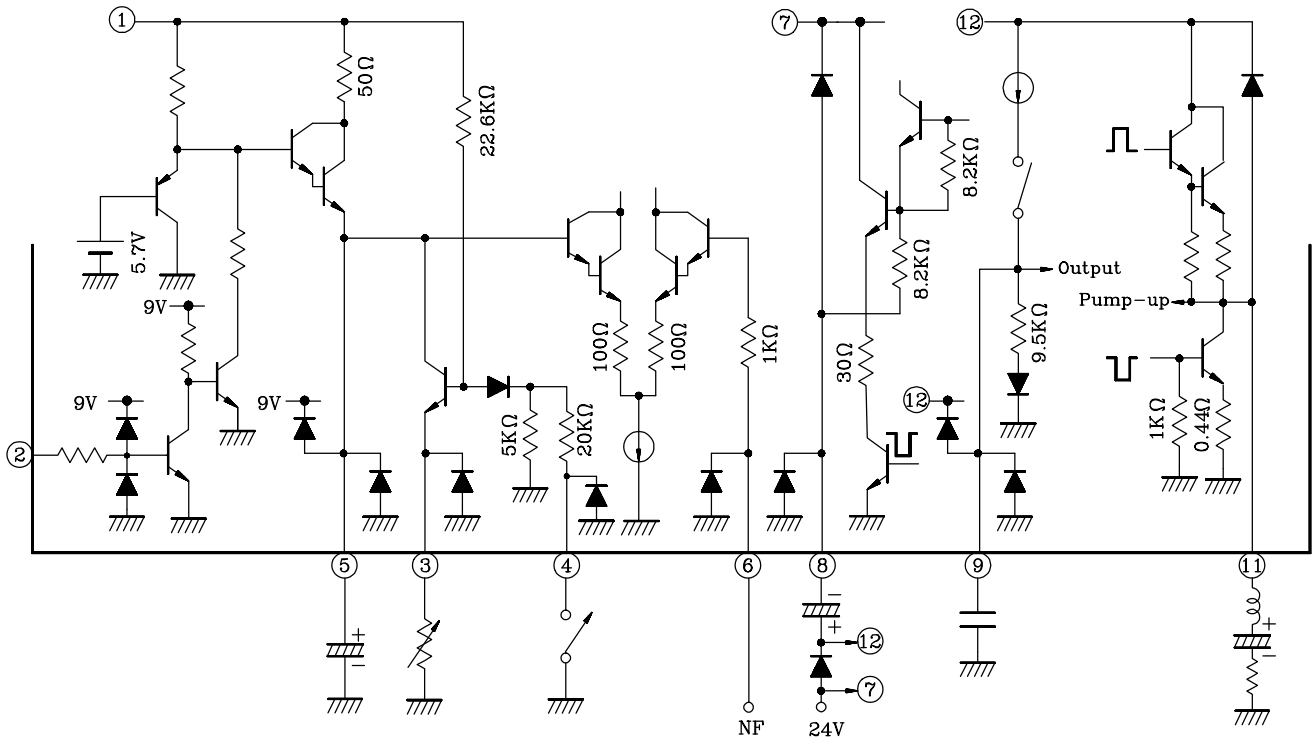
CHARACTERISTIC	SYMBOL	RATING	UNIT
V.Driver Power Supply	V_{CC}	15	V
Pump-up Power Supply Voltage	V_{CC}	30	V
Vertical Output Supply Voltage	V_{CC}	60	V
Power Dissipation	P_D max	12.5	W
Operating Temperature	T_{opr}	-20~85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

BLOCK DIAGRAM



KIA8445K

TERMINAL INTERFACE



RECOMMENDED OPERATING CONDITIONS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
V.Driver Supply Voltage	V_{CC1}	8.1	9.0	9.9	V
Pump-up Supply Voltage	V_{CC2}	-	24	29	V
Deflection Output Current	I_{HP-P}	-	-	2.2	°C

KIA8445K

ELECTRICAL CHARACTERISTICS

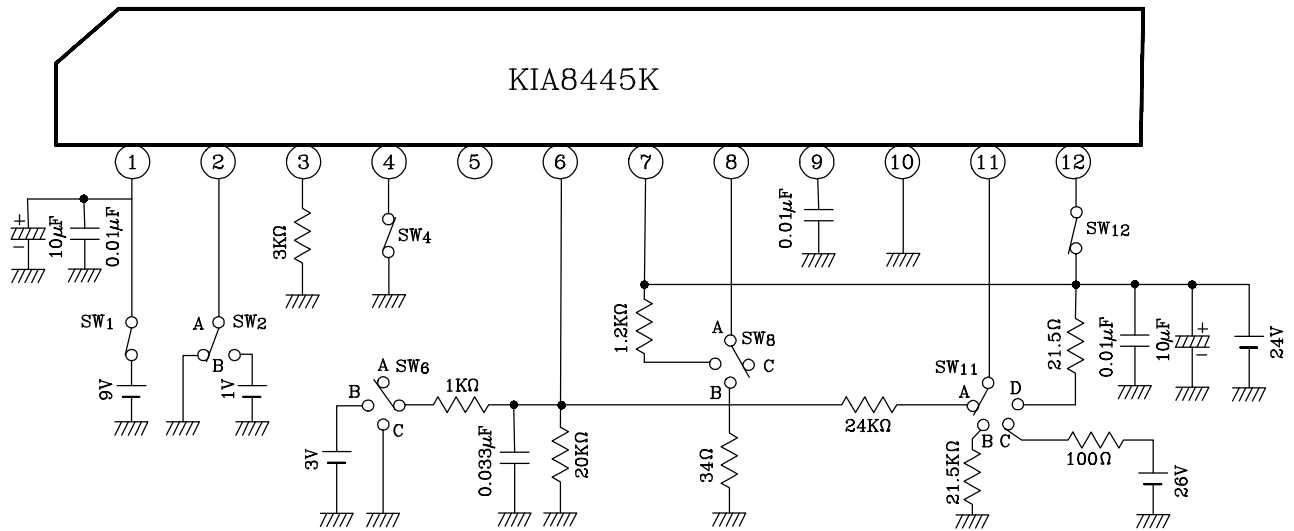
(Unless otherwise specified, $V_{CC1}=9V$, $V_{CC2}=24V$, $T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	NOTE	MIN.	TYP.	MAX.	UNIT
V. Driver Supply Current	I_{CC1}	-	1	2	5.0	12	mA
Vertical Triger Threshold	V_2	-	2	-	-	1.0	V
Vertical Amplitude Cont. Voltage (1)	V_3	-	3	1.0	1.5	2.0	V
Vertical Amplitude Cont. Voltage (2)	V_3	-	11	0.75	1.25	1.75	V
Ramp-signal Maximum Voltage	V_5	-	4	3.5	4.8	6.0	V
Ramp-signal Maximum Amplitude	V_{5P-P}	-	4	3.5	4.5	5.5	V_{P-P}
Output Triger Satulation Voltage (1)	V_{S11-10}	-	5	0.3	0.5	1.0	V
Output Triger Satulation Voltage (2)	V_{S12-11}	-	6	1.0	1.8	3.6	V
Pump-up Triger Satulation Voltage (1)	V_{S7-8}	-	7	1.0	2.0	3.0	V
Pump-up Triger Satulation Voltage (2)	V_{S8-10}	-	8	0.2	0.8	1.6	V
Idling Current	I_b	-	9	-	26	-	mA
Vertical Output Center Voltage	V_{CENTER}	-	10	8.0	12.0	14.0	V

NOTE	SW							TEST TERMINAL
	1	2	4	6	8	11	12	
1	ON	A	OFF	A	C	A	ON	1
2	ON	B	OFF	A	C	A	ON	5
3	ON	A	OFF	A	C	A	ON	3
4	ON	A	OFF	A	C	A	ON	5
5	ON	B	OFF	B	C	D	ON	11
6	OFF	A	OFF	C	C	B	ON	11-12
7	OFF	A	OFF	A	B	C	OFF	7-8
8	OFF	A	OFF	A	A	A	OFF	8
9	ON	A	OFF	A	C	A	ON	12
10	ON	A	OFF	A	C	A	ON	11
11	ON	A	ON	A	C	A	ON	3

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TEST CIRCUIT



APPLICATION CIRCUIT

