

KEC

KOREA ELECTRONICS CO.,LTD.

**SEMICONDUCTOR
TECHNICAL DATA****KIA8403K**

BIPOLAR LINEAR INTEGRATED CIRCUIT

**VERTICAL DEFLECTION OUTPUT CIRCUIT FOR
COLOR TELEVISION**

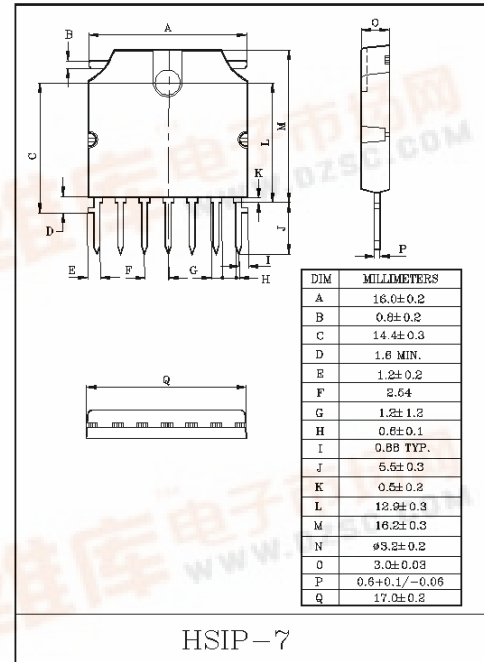
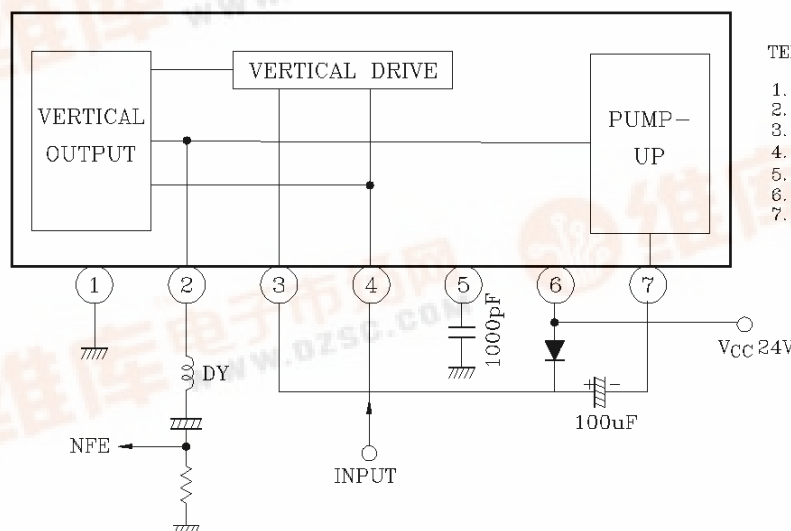
The KIA8403K is a power amplifier for driving a vertical deflection circuit of a small and medium screen size color television. Which is available for constructing a stable deflection circuit with small number parts in an application.

FEATURES

- Large output current : 1.8A_{P-P} (Max.)
- Small power dissipation with a Pump-up circuit
- Small number external parts

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Supply Voltage	V _{CC}	30	V
Pump-up Power Supply Voltage	V _{Vt}	60	V
Terminal Voltage	E _{in}	GND -0.3~ V _{Vt} +0.3	V
Input Signal Voltage	e _{in}	0~1.2	V
Power Dissipation	P _D	15 (Note)	W
Operating Temperature	T _{opr}	-20~85	℃
Storage Temperature	T _{stg}	-55~150	℃

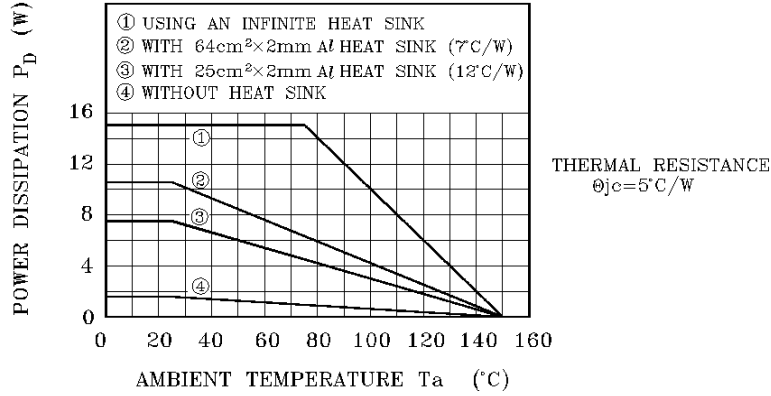
**BLOCK DIAGRAM****TERMINAL NAME**

1. GND
2. Vertical Output
3. Pump-up power supply
4. Input
5. Phase Compensation
6. Power supply
7. Pump-up Output

KIA8403K

TERMINAL INTERFACE

$$P_D - T_a$$



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

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V_{CC}	-	24	27	V
Deflection Output Current	I_{2P-P}	-	-	1.8	A _{P-P}

ELECTRICAL CHARACTERISTICS

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

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Saturation Voltage of the Vertical Output Transistor (1)	$V_{V(sat)1}$	1	(Note 1)	0.3	0.5	1.0	V
Saturation Voltage of the Vertical Output Transistor (2)	$V_{V(sat)2}$	1	(Note 2)	1.0	1.8	3.6	V
Saturation Voltage of the Pump-up Output Transistor (1)	$V_{P(sat)1}$	1	(Note 3)	1.0	2.0	3.0	V
Saturation Voltage of the Pump-up Output Transistor (2)	$V_{P(sat)2}$	1	(Note 4)	0.3	0.8	1.6	V
Output Current with no input	I_B	1	(Note 5)	10.0	15.0	30.0	mA
Center Output Voltage	V_{CENTER}			10.0	12.0	14.0	V

(Note 1) SW_1 :ON, SW_2 :C, SW_3 :ON, SW_4 :B, SW_5 :A, SW_6 :A
Measure the voltage of pin 2.

(Note 2) SW_1 :ON, SW_2 :C, SW_3 :ON, SW_4 :A, SW_5 :A, SW_6 :B
Measure the voltage of pin 2, $V_2 \cdot V_{V(sat)2} = V_{CC} - V_2$

(Note 3) SW_1 :ON, SW_2 :C, SW_3 :OFF, SW_4 :A, SW_5 :C, SW_6 :A
Measure the voltage of pin 7, $V_7 \cdot V_{P(sat)1} = V_{CC} - V_7$

(Note 4) SW_1 :OFF, SW_2 :C, SW_3 :OFF, SW_4 :A, SW_5 :B, SW_6 :B
Measure the voltage of pin 7.

(Note 5) SW_1 :ON, SW_2 :A, SW_3 :ON, SW_4 :C, SW_5 :A, SW_6 :B
Measure the sink current into pin 3.
Measure the voltage of pin 2.

(Note 6) TA8403K is checked its output wave form in a real operating circuit.

KIA8403K

TEST CIRCUIT

