

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

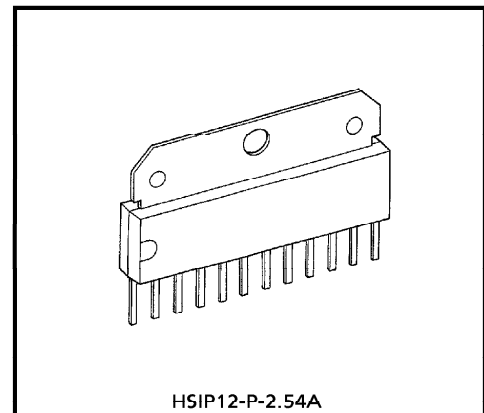
TA8445K

POWER AMPLIFIER FOR DRIVING A DEFLECTION CIRCUIT OF A COLOR TELEVISION

The TA8445K is a power amplifier for driving a deflection circuit of a middle and large screen size color television. The TA8445K combines the vertical output circuit and the Ramp-generator in a 12-pin shrink DIP plastic package. The TA8445K requires only vertical deflection positive pulse for vertical operation.

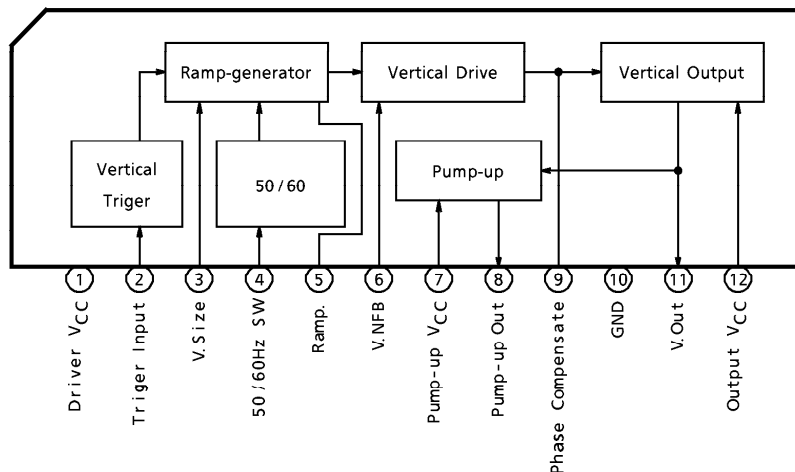
FEATURES

- 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 external parts



Weight : 3.2g (Typ.)

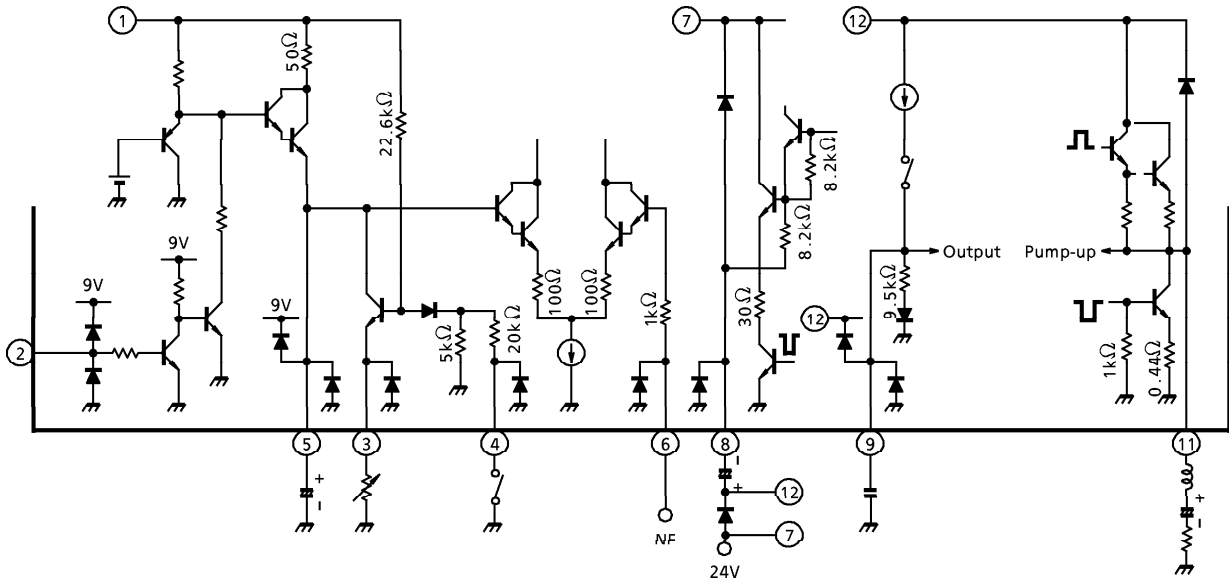
BLOCK DIAGRAM



961001EBA2

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The products described in this document are subject to foreign exchange and foreign trade control laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

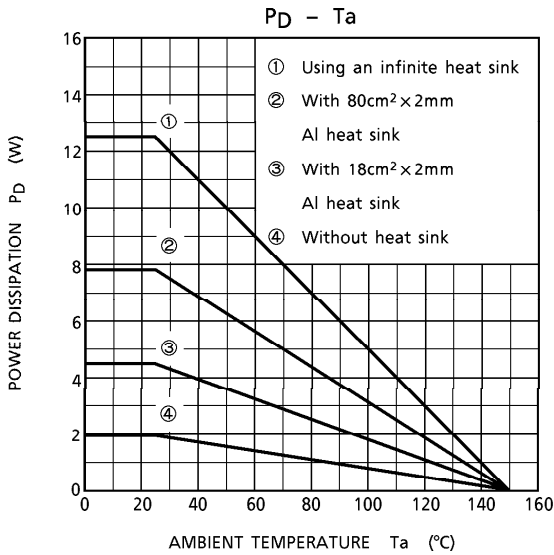
TERMINAL INTERFACE



MAXIMUM RATINGS (Ta = 25°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 (Note)	W
Operating Temperature	T _{opr}	- 20~85	°C
Storage Temperature	T _{stg}	- 55~150	°C

(Note) Using an infinite heat sink.



RECOMMENDED OPERATING CONDITION (Ta = 25°C)

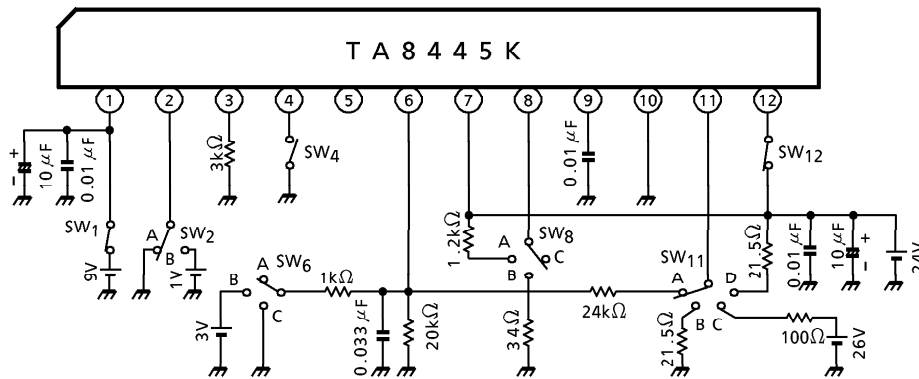
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
V.Driver Supply Voltage	V _{CC1}	8.1	9.0	9.9	V
Pump-up Supply Voltage	V _{CC2}	—	24	29	V
Deflection Output Current	I _{11p-p}	—	—	2.2	A _{p-p}

ELECTRICAL CHARACTERISTICS (Ta = 25°C, V_{CC1} = 9V, V_{CC2} = 24V)

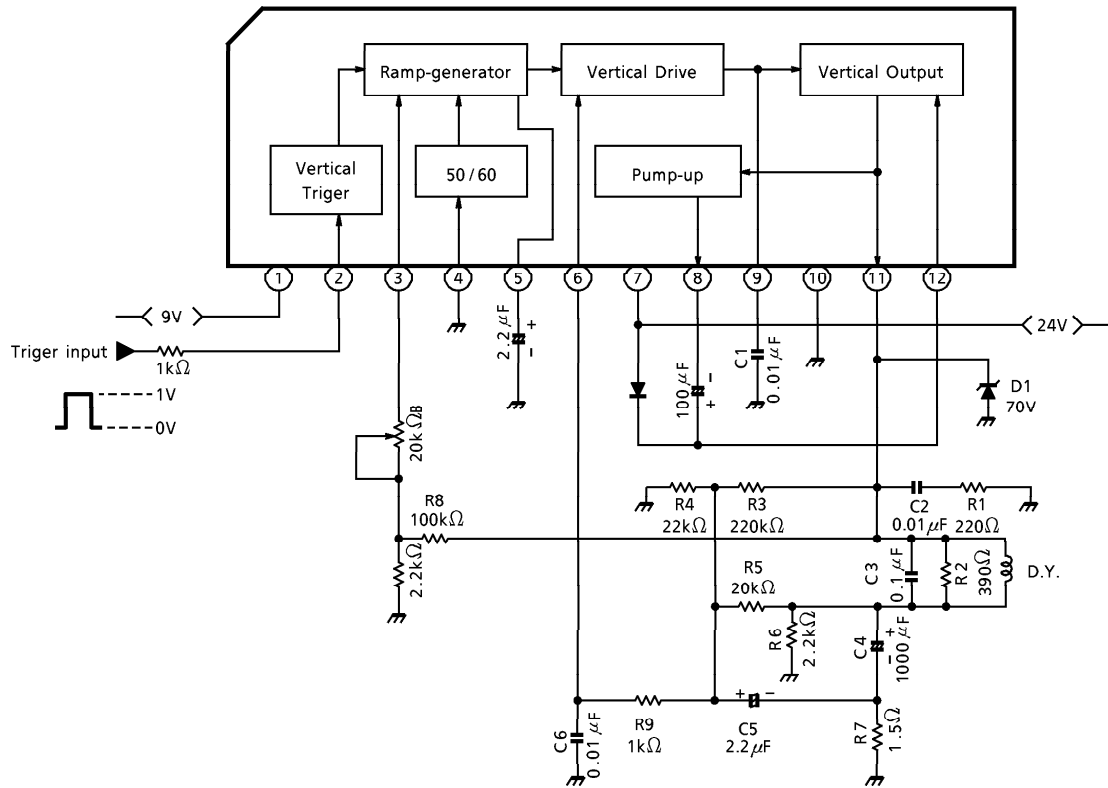
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
V.Driver Supply Current	I _{CC1}	—	1	2.0	5.0	12	mA
Vertical Triger Threshold Voltage	V ₂	—	2	—	—	1.0	V
Vertical Amplitude Cont. Voltage (1)	V ₃ ⁶⁰	—	3	1.0	1.5	2.0	V
Vertical Amplitude Cont. Voltage (2)	V ₃ ⁵⁰	—	11	0.75	1.25	1.75	V
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 MODE							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

TEST CIRCUIT

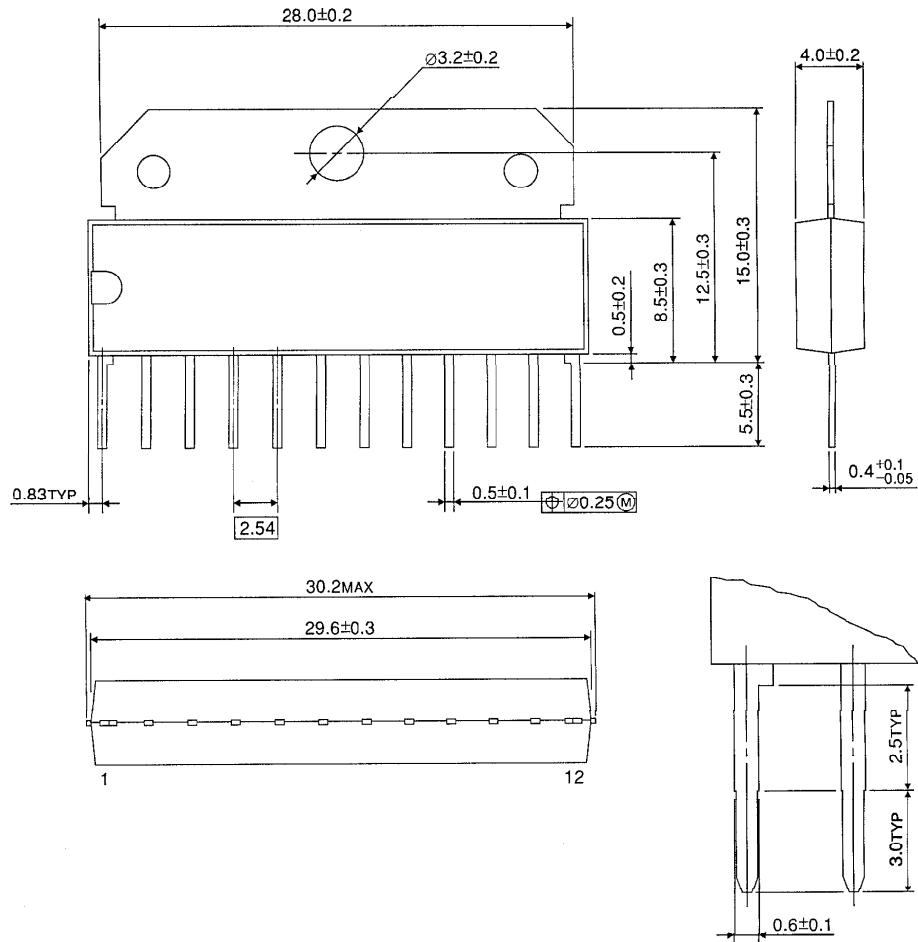


APPLICATION CIRCUIT



OUTLINE DRAWING
HSIP12-P-2.54A

Unit : mm



Weight : 3.2g (Typ.)