

T-77-07-07

KA2103L**LINEAR INTEGRATED CIRCUIT****SOUND MUTE SYSTEM FOR TV**

The KA2103L is a monolithic integrated circuit designed for noise sound muting in television receiver.

This IC has all functions including horizontal synchronizing detector, comparator and open collector output terminal.

FEATURES

- Wide operating voltage range.
- Small shock noise at the time of power on/off.
- Good noise sound muting characteristic.
- Capable of being connected to the other IC directed.
- Collector open output.
- Minimum number of external parts required.

8 SIP

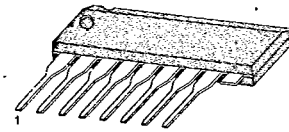
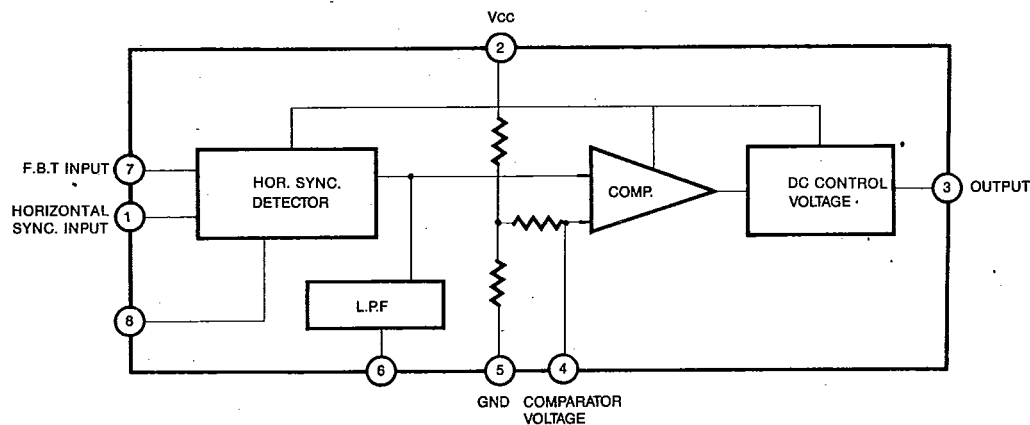
**BLOCK DIAGRAM**

Fig. 1

**SAMSUNG SEMICONDUCTOR**

T-77-07-07

KA2103L

LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	15	V
Comparator Difference	V_{COMP}	6	V
Power Dissipation	P_d	80	mW
Operating Temperature	T_{opr}	-20 ~ +70	°C
Storage Temperature	T_{stg}	-40 ~ +125	°C

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$, $V_{CC}=12\text{V}$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Quiescent Circuit Current	I_{CC}		3.5	5.0	9.0	mA
Input Voltage Level (FBT)	$V(\text{FBT})$	Pin 7	8.5	9	10	V_{PP}
Input Voltage Level (HS)	$V(\text{HS})$	Pin 1	4.5	5	6	V_{PP}
Output Saturation Voltage	$V(\text{SAT})$		—	0.33	0.7	V
L.P.F Output Current	I_{O1}		0.5	0.8	1.5	mA
Comparator Voltage Settling Range	BV_A	Pin 4	2	3	4	V
Comparator Voltage Settling Range	BV_B	Pin 8	6	9	10	V

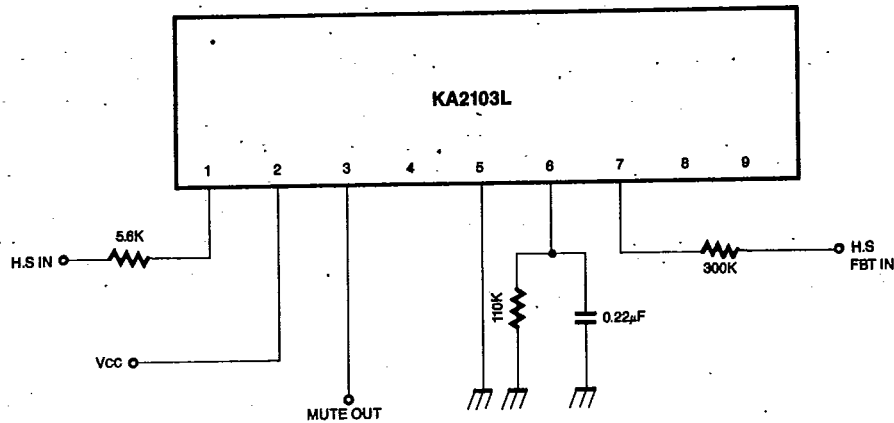
Input Voltage Level (FBT) Input Voltage Level (HS) $V(\text{HS})$ $V(\text{FBT})$ 8.5 V_{PP}

T-77-07-07

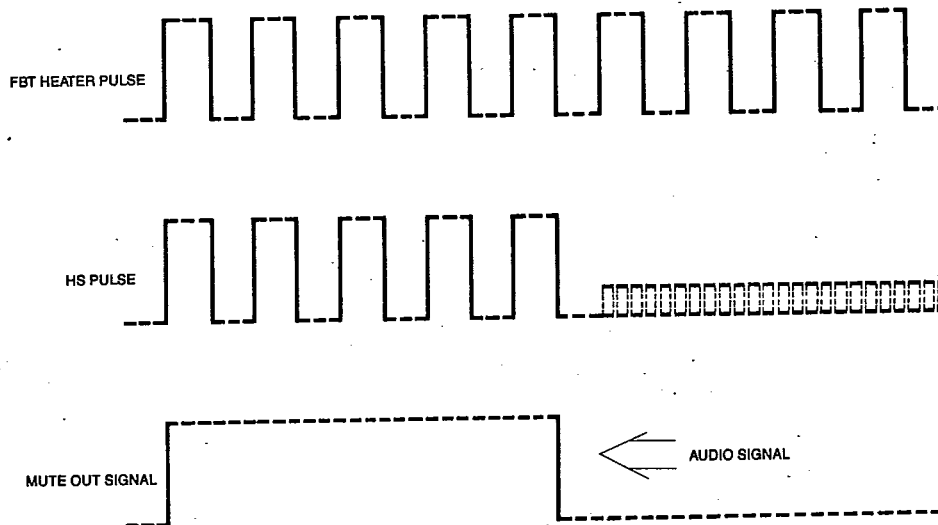
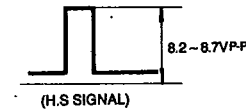
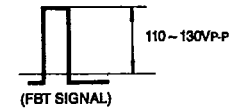
KA2103L

LINEAR INTEGRATED CIRCUIT

TYPICAL APPLICATION CIRCUIT

**Note**

- F.B.T : Fly back transformer (C.R.T. Heater line)
(Television set F.B.T voltage=110~130V_{P-P})
- V_{CC} : D.C 12V
- Mute Out : Sound IC Audio signal input
(Active: High)
- H.S : Horizontal Sync (KA2153 Pin=37)
(Television set H.S voltage=8.2~8.7V_P)



SAMSUNG SEMICONDUCTOR