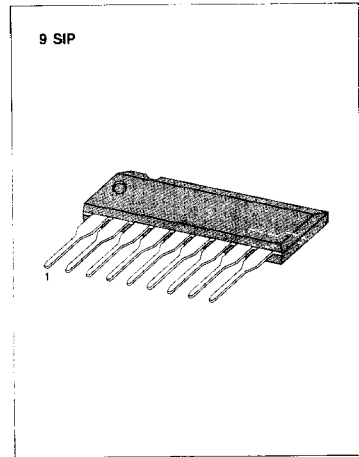


3-INPUT SWITCH

The KA8403 is a monolithic integrated circuit designed for the 3-input switch in a VCR system.

FEATURES

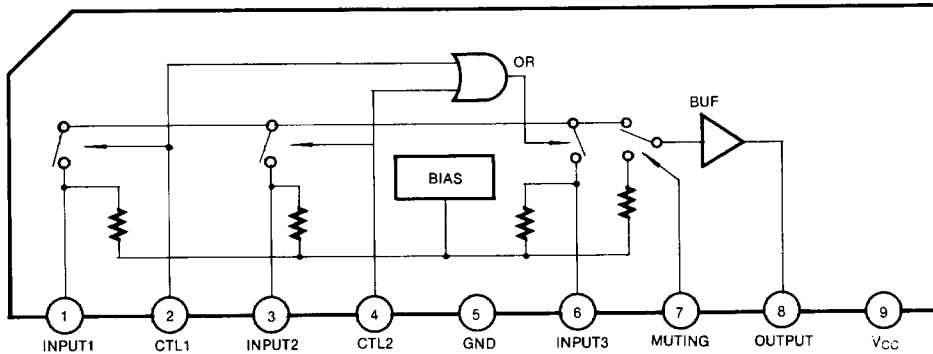
- Suitable for video & audio signals
- Low current operation
- With muting terminal



ORDERING INFORMATION

Device	Package	Operating Temperature
KA8403	9 SIP	- 10 ~ + 70°C

BLOCK DIAGRAM



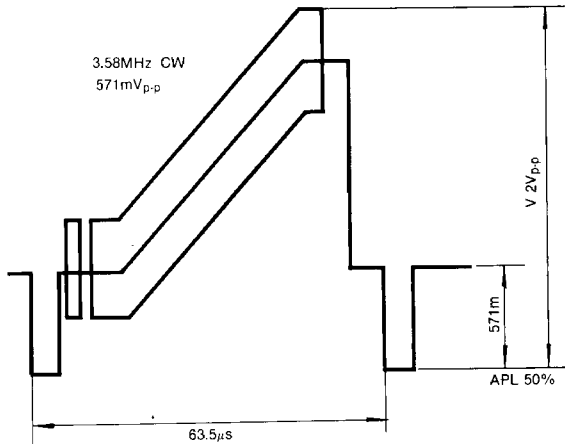
ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Supply Voltage	V_{CC}	14	V
Signal Level At Input Pin	E_{IN}	5	V_{p-p}
Input Voltage At Control Pin	V_{IN}	$-0.3 \sim V_{CC} + 0.3$	V
Power Dissipation	P_D	500	mW
Operating Temperature	T_{opr}	$-10 \sim +80$	$^{\circ}C$
Storage Temperature	T_{stg}	$-50 \sim +125$	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($V_{CC} = 9V$, $T_a = 25^{\circ}C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	V_{CC}		8.0	9.0	10.0	V
Total Current	I_{CC}	SW1 – SW6 = 2	3.4	5.5	7.8	mA
Frequency Response	G_{F1}	$V_i = 2.5V_{p-p}$ $V_o(20Hz)/V_o(100KHz)$	-0.5	0	+0.5	dB
	G_{F2}	$V_i = 2.0V_{p-p}$ $V_o(5MHz)/V_o(100KHz)$				
Insertion Loss	G_L	$V_i = 2.5V_{p-p}$, 100KHz V_o/V_i	-0.5	-0.3	0	dB
Distortion	THD	$V_i = 2.5V_{p-p}$, 1KHz	0	0.2	0.5	%
Differential Gain	DG	$V_i =$ Input Waveform	—	0.5	—	%
Differential Phase	DP	$V_i =$ Input Waveform	—	0.5	—	deg
Output Offset Voltage	V_{OS}		-30	0	+30	mV
Cross Talk	C_{R1}	$V_i = 2.0V_{p-p}$, V_o/V_i 4.43MHz	—	-70	-60	dB
	C_{R2}	$V_i = 2.0V_{p-p}$, V_o/V_i 4.43MHz	—	-70	-50	dB
SW Control Voltage	V_{CON}	$2.5V_{p-p}$, 100KHz	2.4	2.9	3.4	V
	V_{MUT}	$2.5V_{p-p}$, 100KHz	2.1	2.6	3.1	V
Muting Capacity	C_{TM}	—	—	-50	-40	dB
Video Output Level	V_{OUT}	$V_i = 2.0V_{p-p}$	1.89	1.93	2.00	V_{p-p}

INPUT WAVEFORM

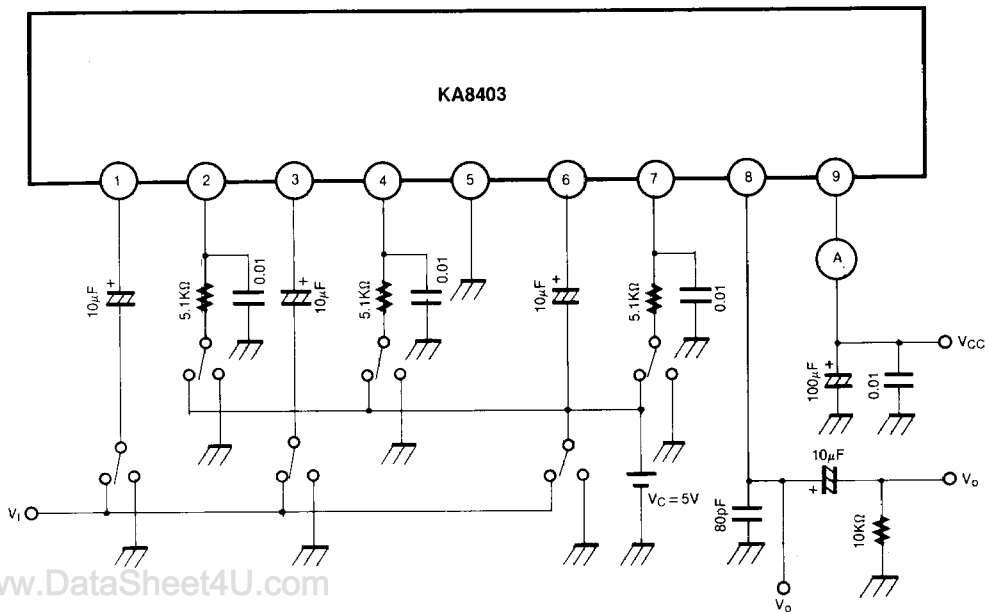


TRUTH TABLE

Control-1	Control-2	Muting	Output
H	L	L	Input-1
L	H	L	Input-2
L	L	L	Input-3
H	H	L	Undefined
*	*	H	None

* Don't care

TEST CIRCUIT



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