

Dimensions (mm)

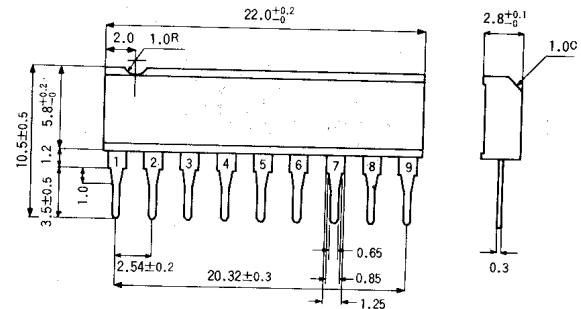


Fig. 1

The BA7001 is a monolithic integrated circuit consisting of a switching IC developed for use in VTR equipment. It is designed to eliminate as much as possible input switching noise and DC output components. In addition, the input frequency range is from the audio range to several MHz, enabling use in a wide range of signal switching applications.

Features

1. Low output DC component
2. Low switching noise
3. Switches a wide range of input frequencies from audio signals to video signals.
4. Good crosstalk characteristics (typically -50dB at 3.5MHz)
5. High control input impedance (typically 35kΩ)

Block Diagram

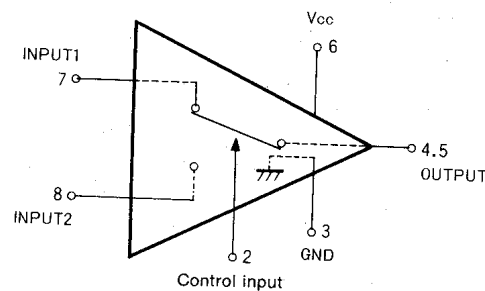


Fig. 2

Application

VTR

Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	15	V
Power dissipation	P _d	540	mW
Operating temperature	T _{opr}	-10~+60	°C
Storage temperature	T _{stg}	-5~+125	°C

Electrical Characteristics (Unless otherwise noted, T_a = 25°C, V_{CC} = 12V)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Supply current	I _{CC}	—	12	—	mA	V _{IN} = 0
Crosstalk	CT	—	-50	—	dB	V _{IN} = 3.5MHz, 0dBm
Total harmonic distortion	THD	—	0.01	—	%	V _{IN} = 1kHz
Control threshold voltage	V _{TH}	—	2.0	—	V	
Input impedance	Z _{IN}	—	15	—	kΩ	

Test Circuit

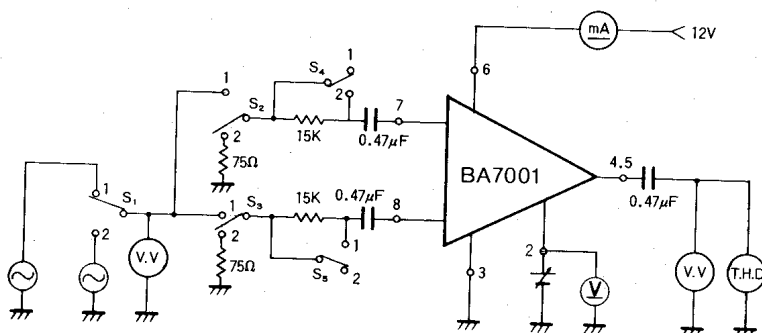


Fig. 3

Item	S ₁	S ₂	S ₃	S ₄	S ₅	Remarks
I _{CC}	1	2	2	2	1	
CT	1	1-2	1-2	2	1	
THD	2	1	1	2	1	
V _{TH}	2	2	1	2	1	Measure pin 2 voltage
Z _{IN}	2	1	1	1-2	1-2	