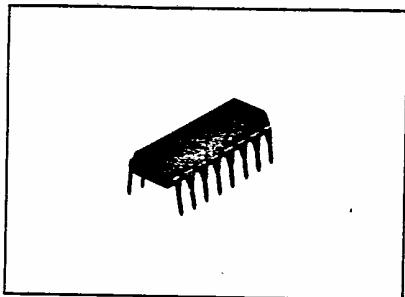


**AM/FM IF Amplifier  
BA4220**

T-27-05-c



The BA4220 is a monolithic integrated circuit developed for use as an AM/FM IF amplifier and detector for use in radio cassette recorders and home stereo systems. It includes an AM/FM level meter circuit and an FM tuning meter circuit, making it ideal for use as an IF system. Also, operating voltage range is wide, with stable operation at low voltages.

#### Features

1. Wide operating voltage range ( $V_{cc}=3.0\sim 14.0V$ ).
2. Low current drain (typically 11.0mA for FM operation).
3. AM/FM level meter output.
4. AFC output.
5. High FM sensitivity.  
Low residual noise.  
High S/N ratio.  
Excellent AM: AGC characteristics.

#### Applications

Radio cassette recorders  
System components  
Music centers  
AM/FM radios

#### Absolute Maximum Ratings ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Supply voltage	$V_{cc}$	16	V
Power dissipation	$P_d$	550*	mW
Operating temperature range	$T_{opr}$	-25~75	°C
Storage temperature range	$T_{stg}$	-40~125	°C

\* Derating is done at 5.5mW/°C for operation above  $T_a=25^\circ C$

#### Dimensions (Unit: mm)

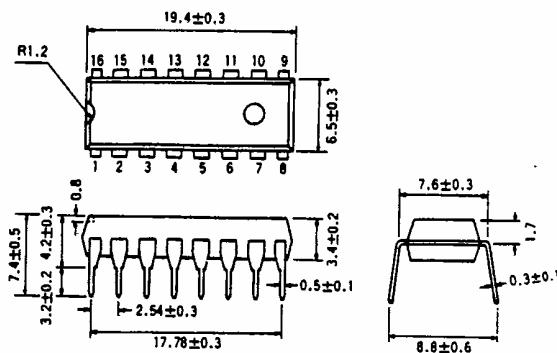


Fig. 1

#### Block Diagram

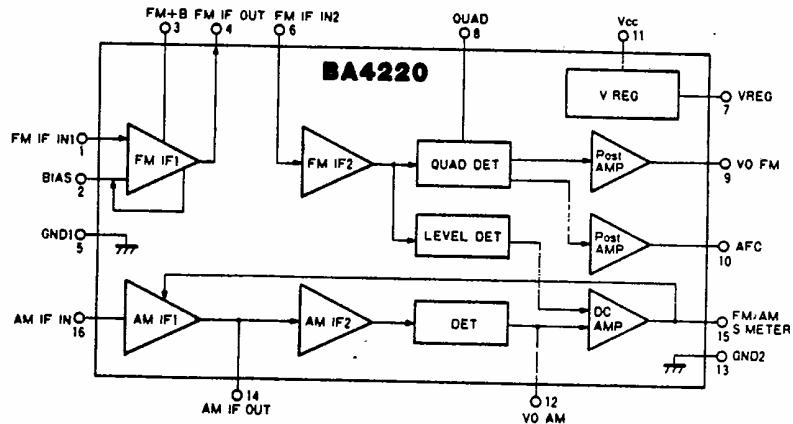
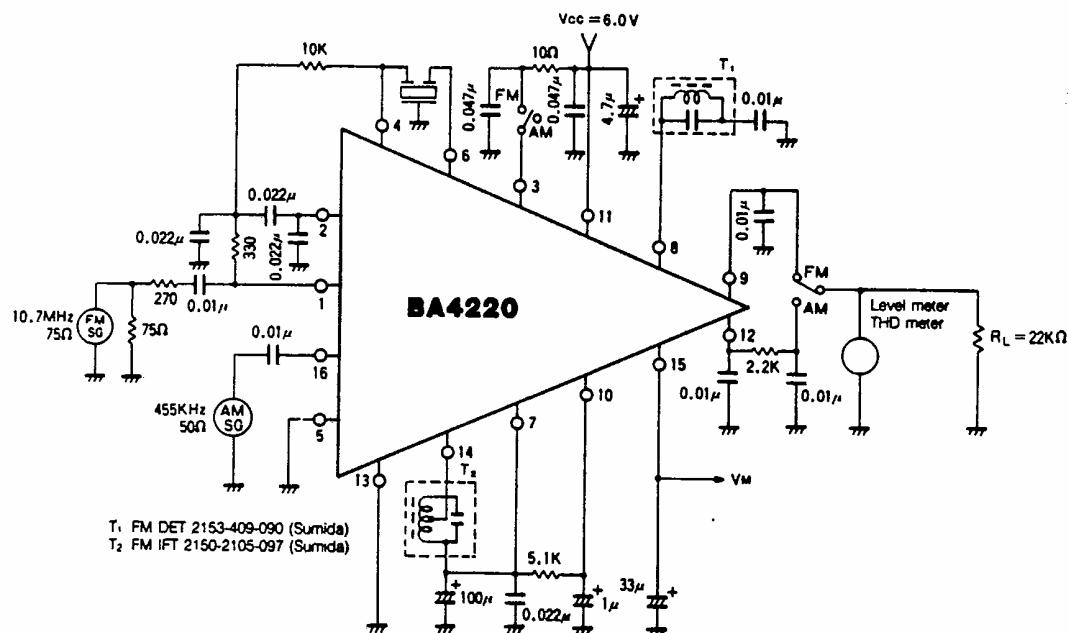


Fig. 2

#### **Electrical Characteristics ( $T_a=25^\circ\text{C}$ , $V_{cc}=6.0\text{V}$ )**

FM:  $f_c = 10.7\text{MHz}$ ,  $f_m = 1\text{kHz}$ , 100% MOD  
 AM:  $f_c = 455\text{kHz}$ ,  $f_m = 1\text{kHz}$ , 30% MOD

## Test Circuit



**Fig. 3**