

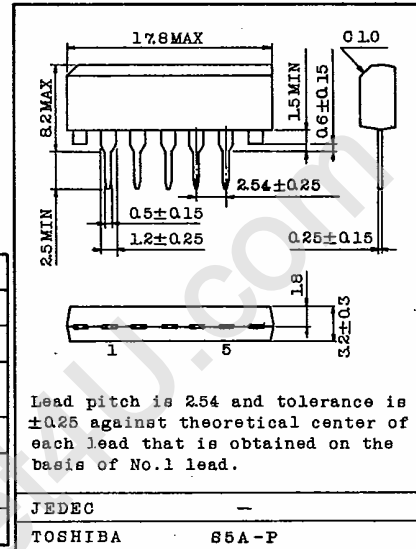
# TA7060AP

T-74-09-01

FOR FM IF AMPLIFIER  
FOR TV SIF AMPLIFIER

- Recommended for Wide and Narrow Bands Amplifier.
- Excellent FM/IF Limiter Circuit.

Unit in mm



## MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	15	V
Output Voltage	V <sub>OUT</sub>	24	V
Input Voltage (Between 1 pin and 2 pin)	V <sub>IN</sub>	±15	V
Power Dissipation (Note)	P <sub>D</sub>	400	mW
Operating Temperature (V <sub>CC</sub> =12V)	T <sub>opr</sub>	-30 ~ 75	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 125	°C

Note: Derated above Ta=25°C in the proportion of 4 mW/°C.

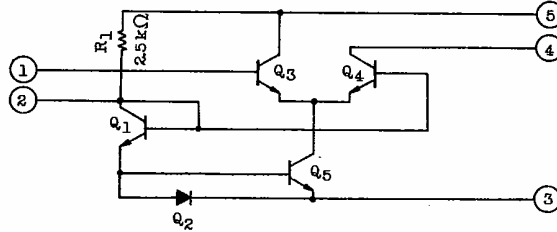
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I <sub>CC</sub>	1	V <sub>CC</sub> =12V	5.3	9.5	14	mA
			V <sub>CC</sub> =9V	-	6.5	-	
Power Dissipation	P <sub>D</sub>	1	V <sub>CC</sub> =12V	-	114	-	mW
			V <sub>CC</sub> =9V	-	59	-	
Power Gain	G <sub>p</sub>	2	V <sub>CC</sub> =12V, f=10.7MHz	27	30	33	dB
			V <sub>CC</sub> =9V, f=10.7MHz	-	27	-	
Voltage Gain	G <sub>v</sub>	3	V <sub>CC</sub> =12V, R <sub>g</sub> =50Ω, R <sub>L</sub> =1kΩ	-	26.5	-	dB
Input Impedance	Parallel Input Resistance	r <sub>ip</sub>	V <sub>CC</sub> =12V f=10.7MHz	-	3.5	-	kΩ
	Parallel Input Capacitance	c <sub>ip</sub>		-	8.0	-	pF
Output Impedance	Parallel Output Resistance	r <sub>op</sub>		-	80	-	kΩ
	Parallel Output Capacitance	c <sub>op</sub>		-	3.0	-	pF
Forward Transfer Admittance	y <sub>f</sub>	-	-	-	30	-	mΩ
Reverse Transfer Admittance	y <sub>r</sub>	-	-	-	2.0	-	μΩ

AUDIO LINEAR IC

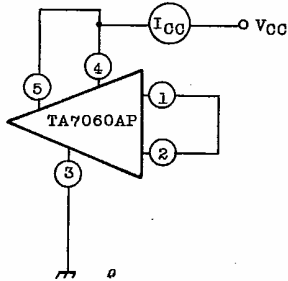
# TA7060AP

## EQUIVALENT CIRCUIT

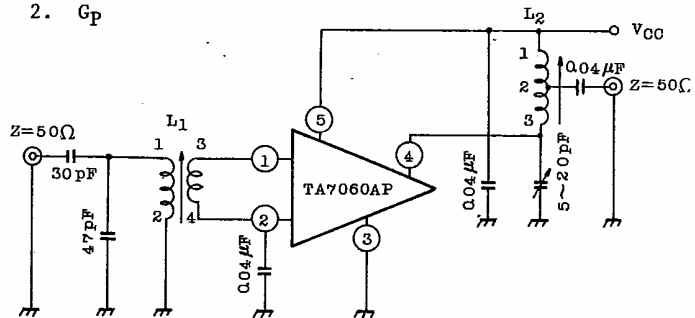


## TEST CIRCUIT

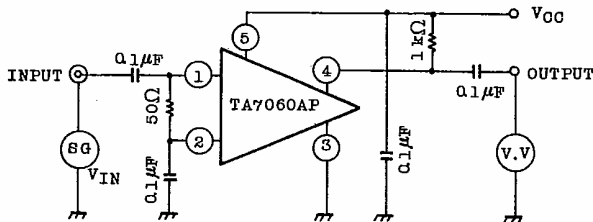
### 1. $I_{CC}, P_D$



### 2. $G_p$



### 3. $G_V$



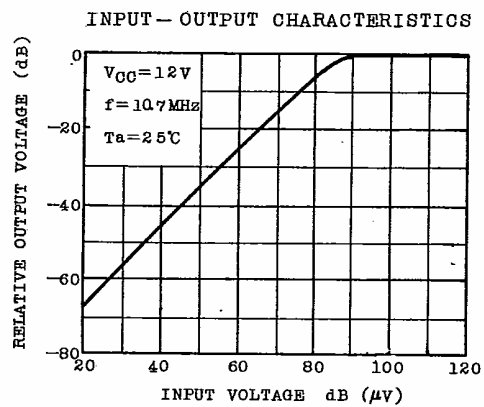
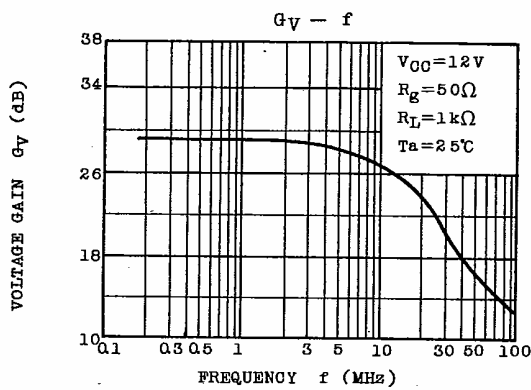
$L_1$  : Between terminals 1 and 2  
16 Turns.

Between terminals 3 and 4  
2 Turns.

$L_2$  : Between terminals 1 and 2  
15 Turns.

Between terminals 1 and 3  
25 Turns.

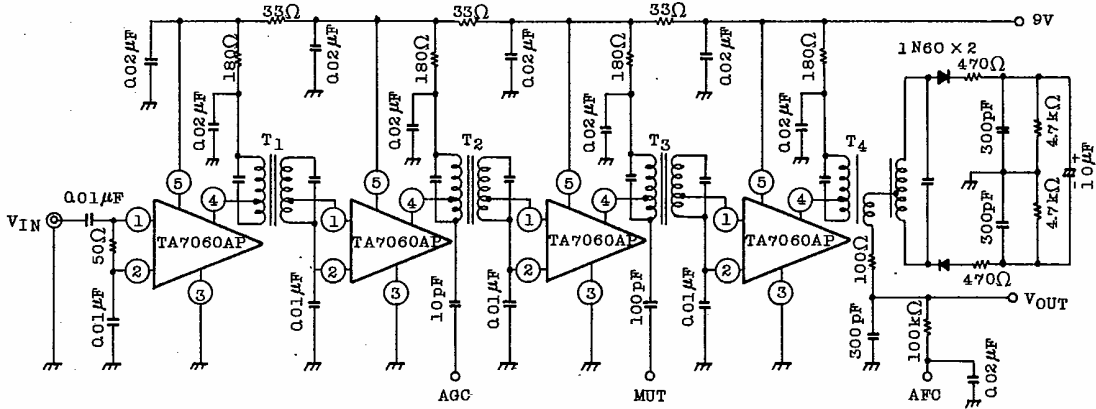
0.10mm  $\varnothing$  UEW



**TOSHIBA**

# TA7060AP

## APPLICATION CIRCUIT

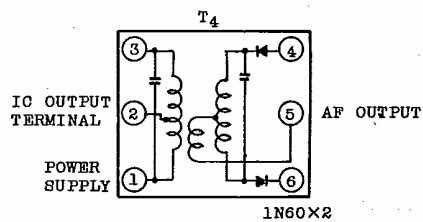
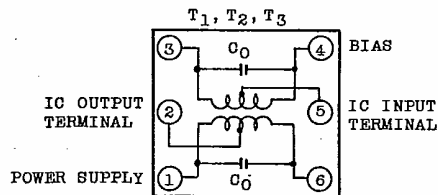


CHARACTERISTIC	SYMBOL	TEST CONDITION	UNIT
Supply Voltage	VCC	-	9 V
Supply Current	ICC	VCC=9V	24 mA
Detected Output Voltage	VOD	VIN=60dB(μV), f=400Hz, ΔF=22.5kHz	70 mV
Input Limiting Voltage	VIN(1im)	-3dB Output	21 dB(μV)
Band Width	BW	6dB Band Width	±110 kHz
Total Harmonic Distortion	THD	VIN=60dB(μV), f=400Hz, ΔF=75kHz	0.5 %
AM Rejection	AMR	FM f=400Hz, ΔF=75kHz, AM f=1kHz 30%	45 dB
Capture Ratio	-	f=400Hz, ΔF=75kHz	3 dB

## COIL DATA

	C <sub>0</sub> (pF)	f (MHz)	TURNS					
			Q <sub>0</sub> 1-6	Q <sub>0</sub> 3-4	1-6	1-2	3-4	4-5
T <sub>1</sub>	120	10.7	65	65	13	6	13	6
T <sub>2</sub>	120	10.7	65	65	13	6	13	6
T <sub>3</sub>	120	10.7	65	65	13	9	13	6

	C (pF)		f (MHz)	Q <sub>0</sub> 1-3	TURNS				
	1-3	4-6			1-3	1-2	5-CT	4-CT	6-CT
T <sub>4</sub>	22	47	10.7	65	31 1/2	11	9 1/2	11	11



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