

9097247 TOSHIBA. ELECTRONIC

02E 16872 D

**TA7060AP**

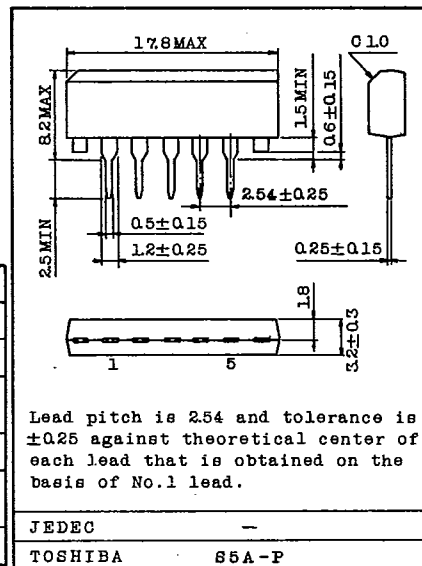
T-74-09-01

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 ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	$V_{CC}$	15	V
Output Voltage	$V_{OUT}$	24	V
Input Voltage (Between 1 pin and 2 pin)	$V_{IN}$	$\pm 15$	V
Power Dissipation (Note)	$P_D$	400	mW
Operating Temperature ( $V_{CC}=12\text{V}$ )	$T_{opr}$	$-30 \sim 75$	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	$-55 \sim 125$	$^\circ\text{C}$

Note: Derated above  $T_a=25^\circ\text{C}$  in the proportion of  $4 \text{ mW}/^\circ\text{C}$ .

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	$I_{CC}$	1	$V_{CC}=12\text{V}$	5.3	9.5	14	mA
			$V_{CC}=9\text{V}$	—	6.5	—	
Power Dissipation	$P_D$	1	$V_{CC}=12\text{V}$	—	114	—	mW
			$V_{CC}=9\text{V}$	—	59	—	
Power Gain	$G_p$	2	$V_{CC}=12\text{V}$ , $f=10.7\text{MHz}$	27	30	33	dB
			$V_{CC}=9\text{V}$ , $f=10.7\text{MHz}$	—	27	—	
Voltage Gain	$G_v$	3	$V_{CC}=12\text{V}$ , $R_g=50\Omega$ , $R_L=1k\Omega$	—	26.5	—	dB
Input Impedance	Parallel Input Resistance	$r_{ip}$	$V_{CC}=12\text{V}$ $f=10.7\text{MHz}$	—	3.5	—	$k\Omega$
	Parallel Input Capacitance	$c_{ip}$		—	8.0	—	pF
Output Impedance	Parallel Output Resistance	$r_{op}$		—	80	—	$k\Omega$
	Parallel Output Capacitance	$c_{op}$		—	3.0	—	pF
Forward Transfer Admittance	$y_f$	—	—	—	30	—	mS
Reverse Transfer Admittance	$y_r$	—	—	—	2.0	—	$\mu\text{S}$

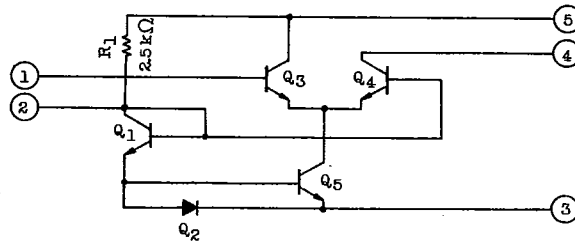
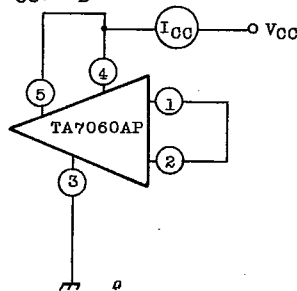
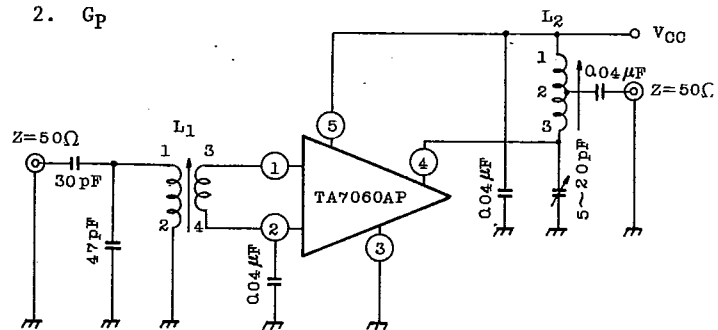
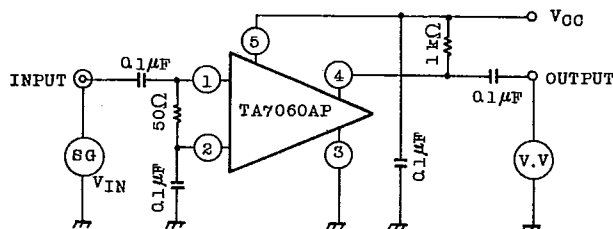
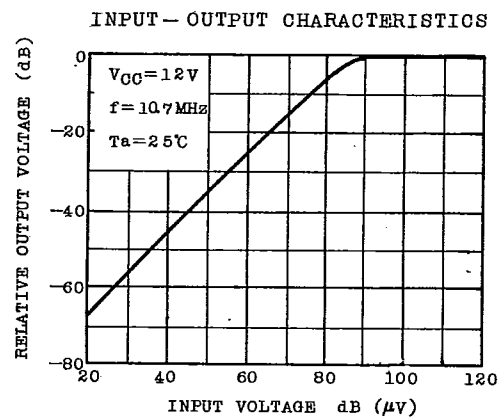
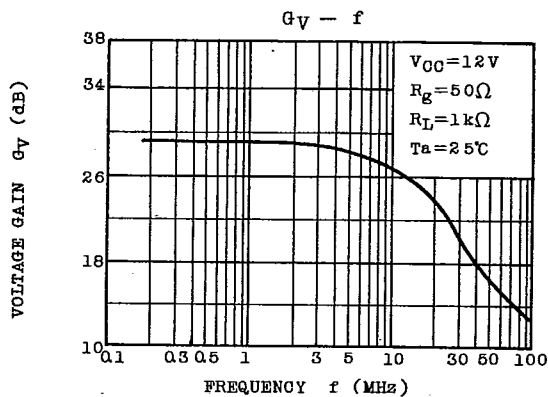
AUDIO LINEAR IC

9097247 TOSHIBA, ELECTRONIC

02E 16873 D

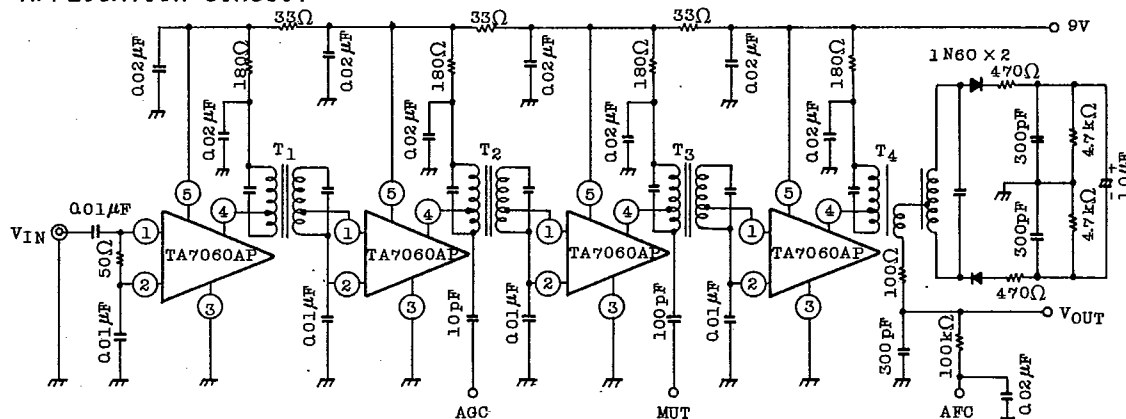
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**EQUIVALENT CIRCUIT****TEST CIRCUIT**1.  $I_{CC}$ ,  $P_D$ 2.  $G_p$ 3.  $G_v$  $L_1$  : Between terminals 1 and 2  
16 Turns.Between terminals 3 and 4  
2 Turns. $L_2$  : Between terminals 1 and 2  
15 Turns.Between terminals 1 and 3  
25 Turns.0.10mm $\phi$  UEW**TOSHIBA**

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## APPLICATION CIRCUIT

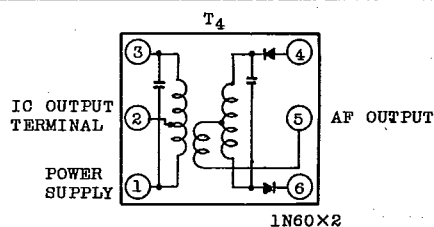
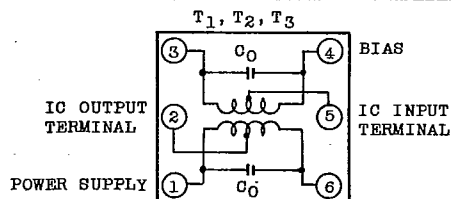


CHARACTERISTIC	SYMBOL	TEST CONDITION		UNIT
Supply Voltage	VCC	-	9	V
Supply Current	ICC	VCC=9V	24	mA
Detected Output Voltage	VOD	VIN=60dB(μV), f=400Hz, ΔF=22.5kHz	70	mV
Input Limiting Voltage	VIN(lim)	-3dB Output	21	dB(μV)
Band Width	BW	6dB Band Width	±110	kHz
Total Harmonic Distortion	THD	VIN=60dB(μV), 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					
			1-6	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>	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



AUDIO LINEAR IC