

# TA7302P

**FOR FM IF AMPLIFIER  
WIDE-BAND AMPLIFIER**

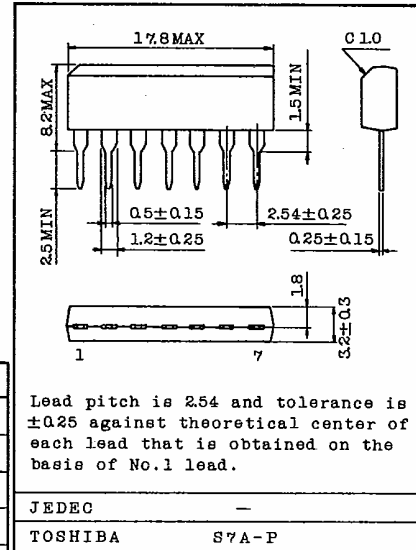
- . High Sensitivity :  $V_{IN(1im)}=78dB\mu V$  (Typ.)
- . Wide Frequency Capability
- . Regulated Voltage Output
- . Wide Operating Supply Voltage Range :  $V_{CC}=8 \sim 16V$

**MAXIMUM RATINGS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	$V_{CC}$	16	V
5 pin Output Current	$I_5$	13	mA
Power Dissipation (Note)	$P_D$	500	mW
Operating Temperature	$T_{opr}$	-25 ~ 75	°C
Storage Temperature	$T_{stg}$	-55 ~ 150	°C

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

Unit in mm



Lead pitch is 2.54 and tolerance is  $\pm 0.25$  against theoretical center of each lead that is obtained on the basis of No.1 lead.

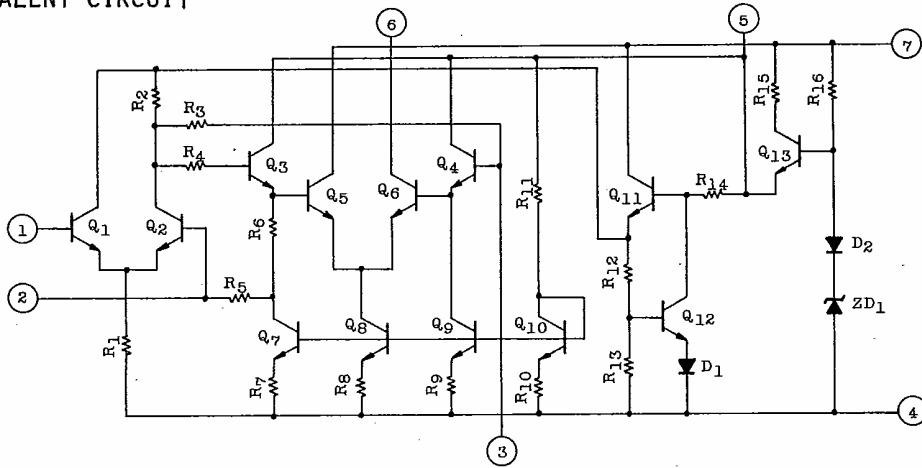
JEDEC -

TOSHIBA S7A-P

**ELECTRICAL CHARACTERISTICS (Ta=25°C, VCC=12V)**

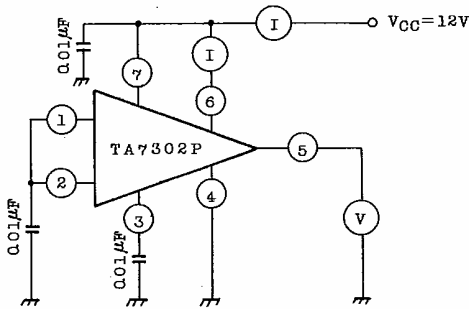
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	$I_{CC}$	1	-	6.4	9.4	12.4	mA
6 pin Current	$I_6$	1	-	1.3	2.0	2.6	mA
5 pin Voltage	$V_5$	1	-	5.7	-	6.9	V
Voltage Gain	$G_V$	2	$f=10.7MHz, V_{in}=60dB\mu V$	31	34	37	dB
Input Limiting Voltage	$V_{IN(1im)}$	2	$f=10.7MHz, V_O=-3dB$	-	78	-	dB $\mu V$
Parallel Input Resistance	$r_{ip}$	3	$f=10.7MHz$	-	8	-	k $\Omega$
Parallel Input Capacitance	$c_{ip}$	3	$f=10.7MHz$	-	5	-	pF
Parallel Output Resistance	$r_{op}$	4	$f=10.7MHz$	-	200	-	k $\Omega$
Parallel Output Capacitance	$c_{op}$	4	$f=10.7MHz$	-	2.5	-	pF

EQUIVALENT CIRCUIT

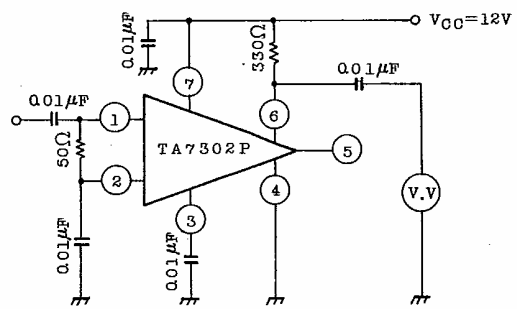


TEST CIRCUIT

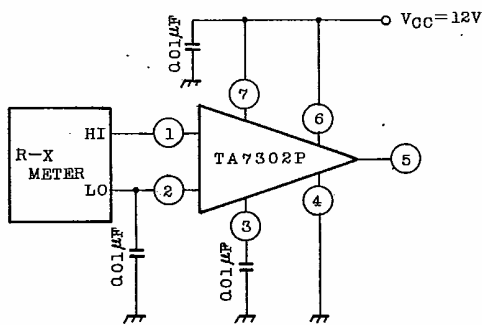
1.  $I_{CC}$ ,  $I_6$ ,  $V_5$



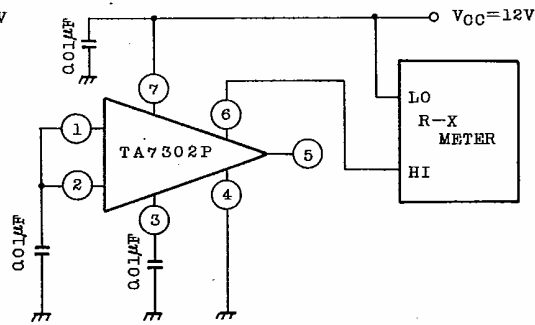
2.  $G_V$ ,  $V_{IN(lim)}$

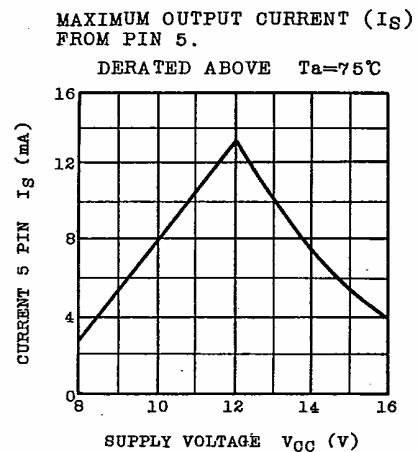
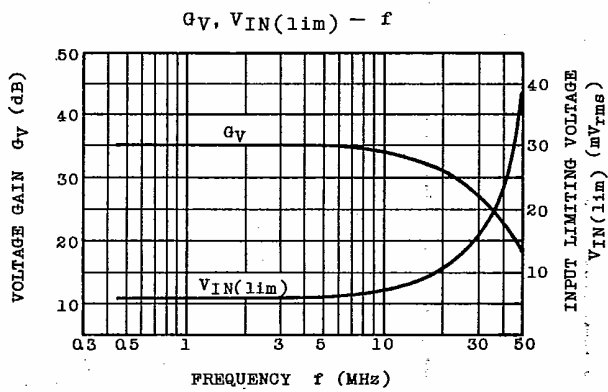
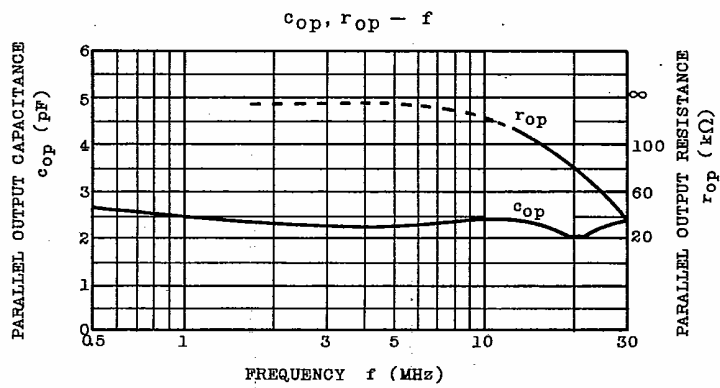
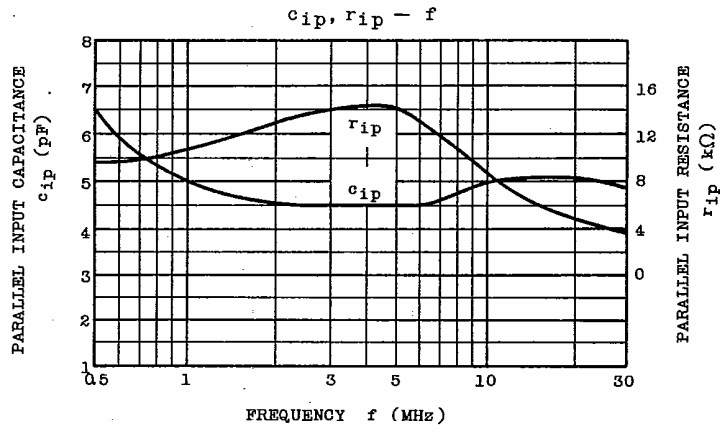


3.  $r_{ip}$ ,  $c_{ip}$

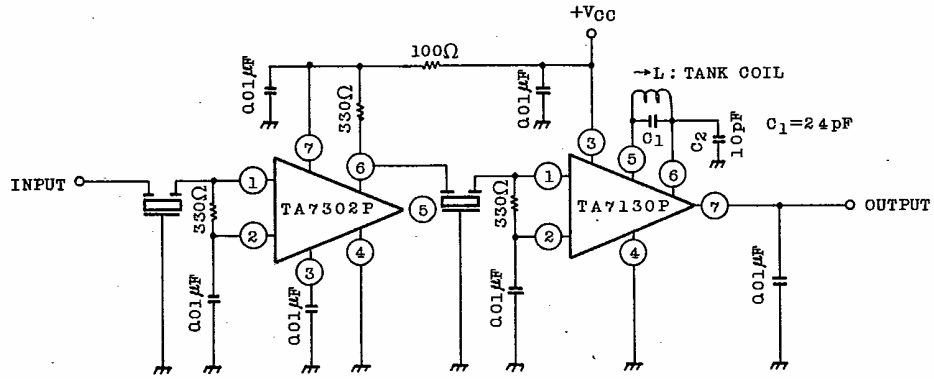


4.  $r_{op}$ ,  $c_{op}$





# APPLICATION CIRCUIT



TANK COIL  
 WIRE 2 UEW 0.08mm∅  
 TURNS 21  
 Qu 130±15%

V<sub>OD</sub>, THD, AMR - V<sub>IN</sub>

