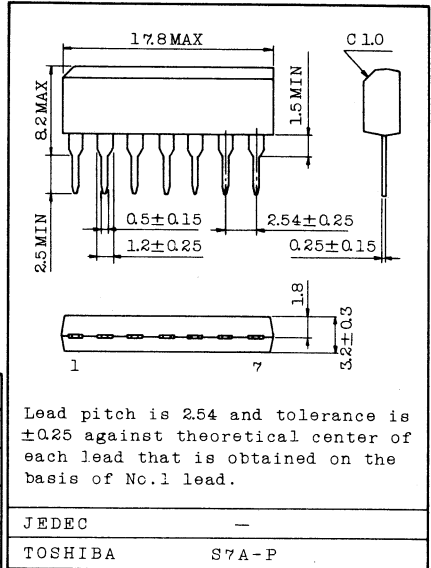


# TA7302P

## 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 :  $V_{CC}=8 \sim 16V$

Unit in mm



### 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

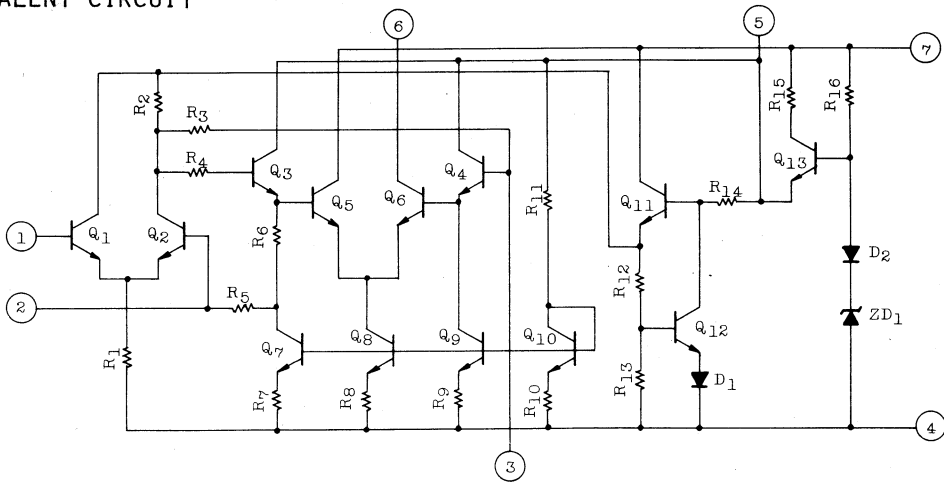
Note: Derated above  $T_a=25^\circ C$  in the proportion of  $4mW/^\circ C$ .

### 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

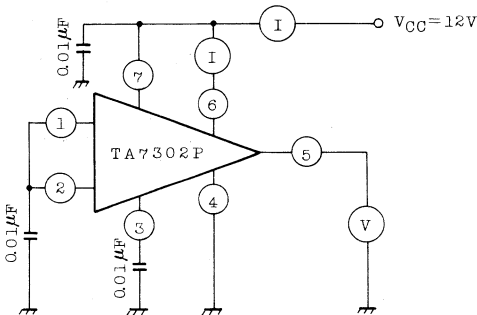
# TA7302P

## EQUIVALENT CIRCUIT

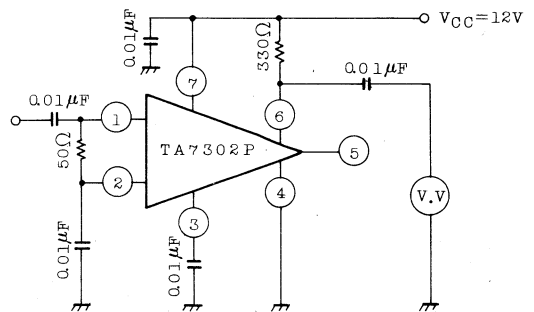


## TEST CIRCUIT

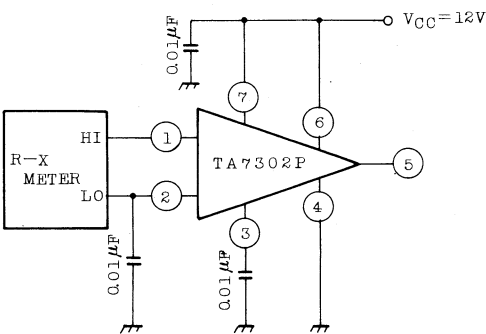
1.  $I_{CC}$ ,  $I_6$ ,  $V_5$



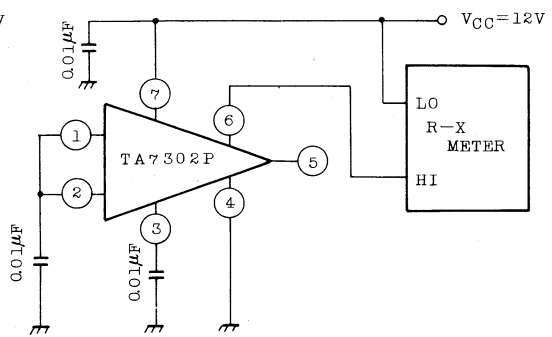
2.  $G_V$ ,  $V_{IN}(1im)$



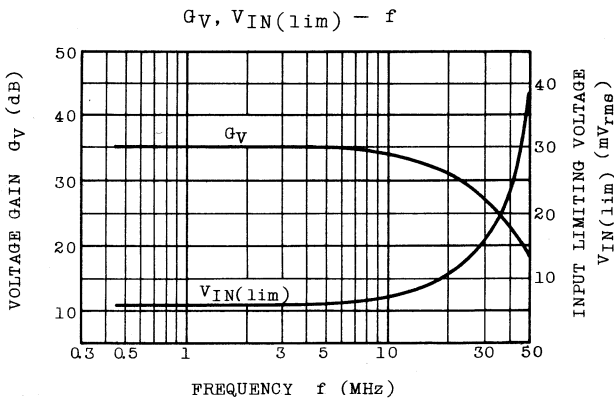
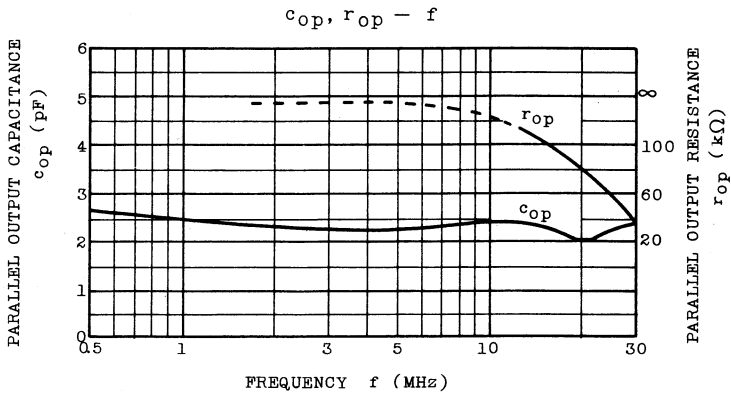
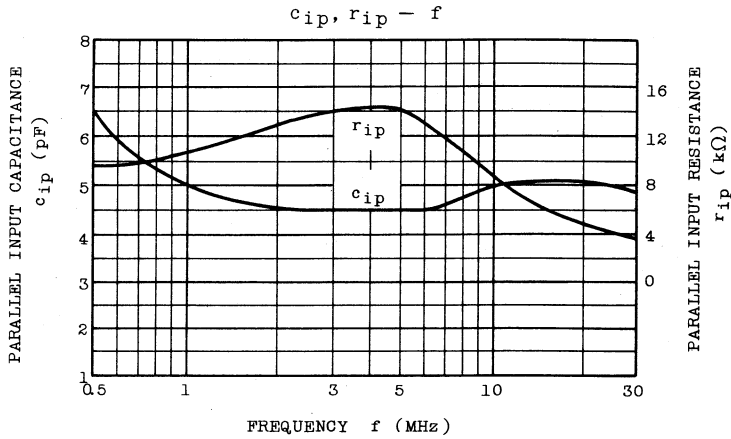
3.  $rip$ ,  $cip$



4.  $rop$ ,  $cop$

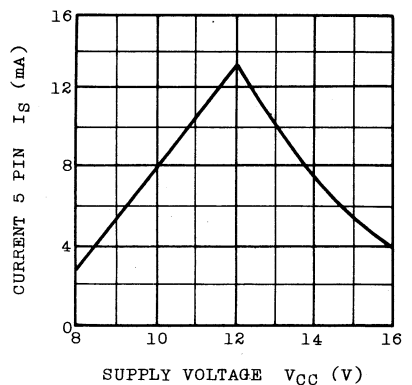


# TA7302P



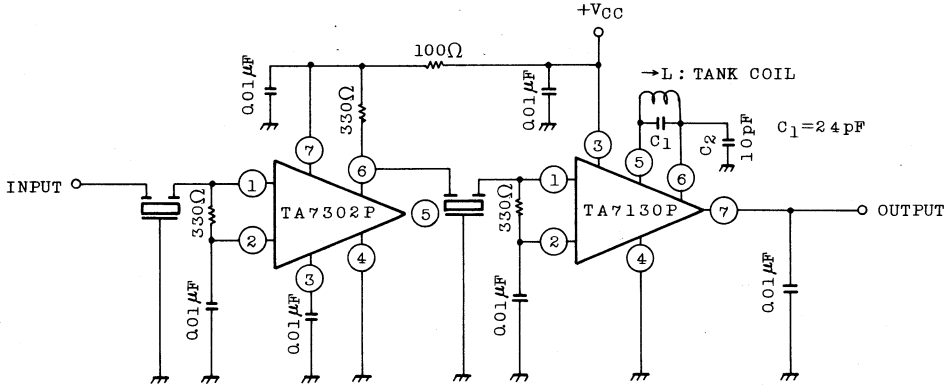
MAXIMUM OUTPUT CURRENT ( $I_S$ ) FROM PIN 5.

DERATED ABOVE  $T_a=75^\circ\text{C}$



# TA7302P

## APPLICATION CIRCUIT



### TANK COIL

WIRE 2 UEW 0.08mm $\phi$   
 TURNS 21  
 Qu 130 $\pm$ 15%

### $V_{OD}$ , THD, AMR - $V_{IN}$

