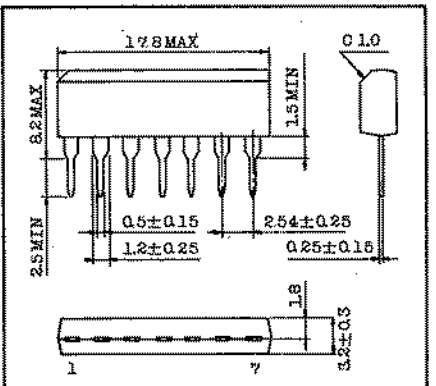
TA7120P

T-74-09-01

GENERAL PURPOSE PRE-AMPLIFIER,
VOLTAGE AMPLIFIER,

- Low Noise. : V_{NI}=2μV_{rms} (Typ.)
- Wide Operating Supply Voltage Range.
- High Open Loop Voltage Gain : G_{VO}=78dB (Typ.)

Unit in mm



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

JEDEC	—
TOSHIBA	87A-P

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	15	V
Power Dissipation (Note)	P_D	200	mW
Operating Temperature	T_{opr}	-30 ~ 75	°C
Storage Temperature	T_{stg}	-55 ~ 125	°C

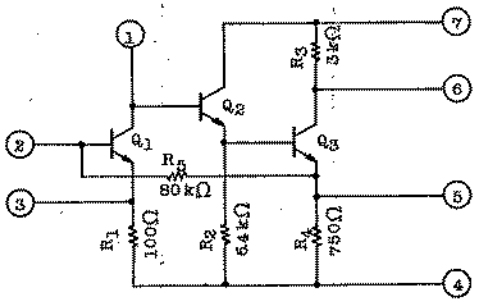
Note: Derated above Ta=25°C in the proportion of 2mW/°C

ELECTRICAL CHARACTERISTICS (V_{CC}=8V, R_L=5.1kΩ, Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I_{CC}	1	V_{IN}=0	-	1.5	2.1	mA
Voltage Gain (Open Loop)	G_{VO}	1	f=1kHz, V_{IN}=-80dBm	75	78	82	dB
Voltage Gain (Closed Loop) (Note)	G_V	2	f=1kHz, R_{NF}=35kΩ, V_{OUT}=1V_{rms}	46.5	-	52.5	dB
Maximum Output Voltage	V_{OM}	3	f=1kHz, THD=1%	1.0	-	-	V_{rms}
Equivalent Input Noise Voltage	V_{NI}	3	NAB Equalizer R_g=2.2kΩ, f=1kHz	-	2.0	-	μV_{rms}

Note: In regard to the value of Voltage Gain (closed loop voltage), it is possible to be classified.

EQUIVALENT CIRCUIT



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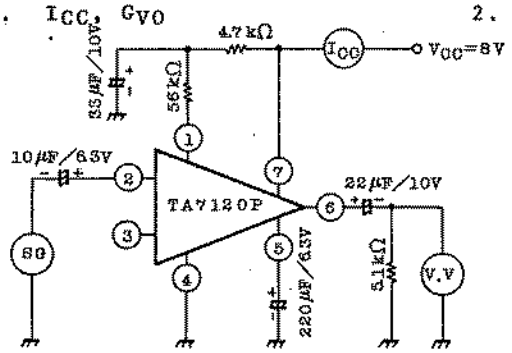
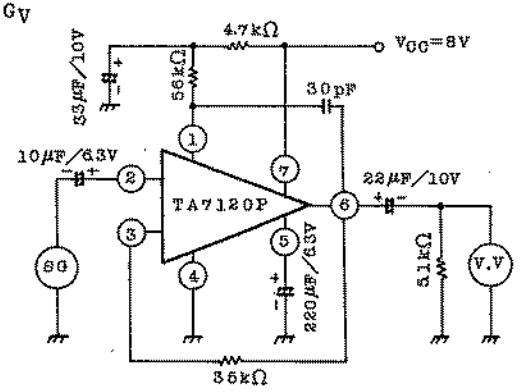
TEST CIRCUIT

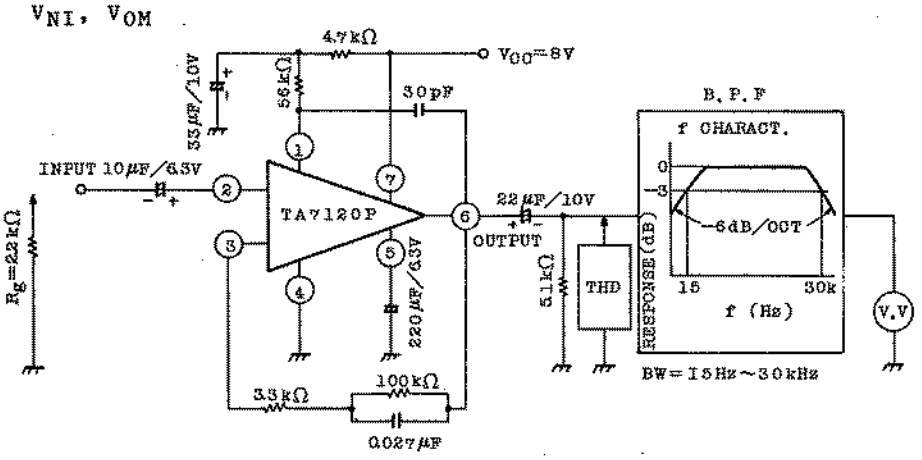
1. I_{CC}, G_{VO}



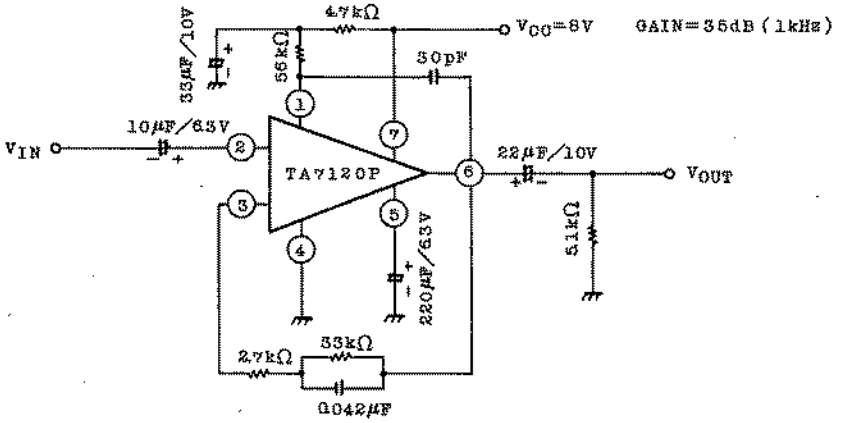
2. G_V



3. V_{NI}, V_{OM}



4. EQUALIZER AMPLIFIER FOR CASSETTE TAPE RECORDER



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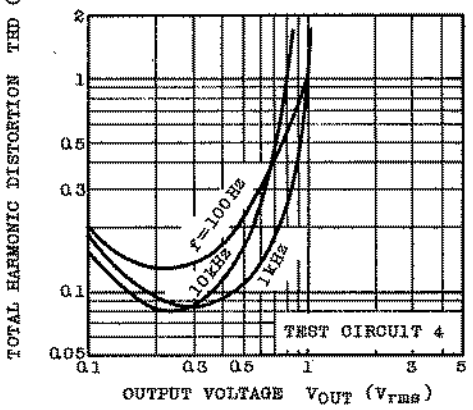
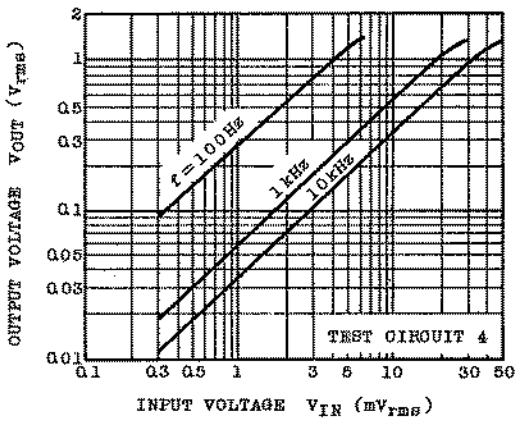
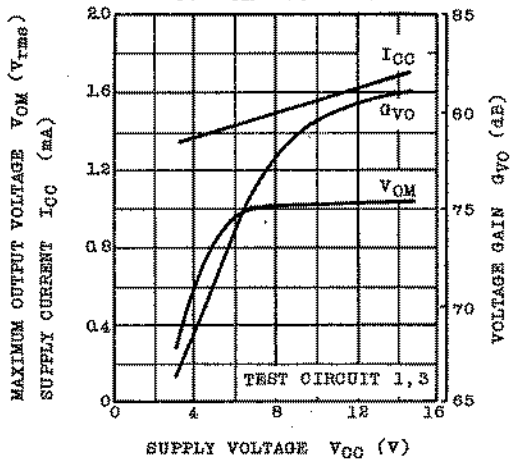
THD – V_{OUT}



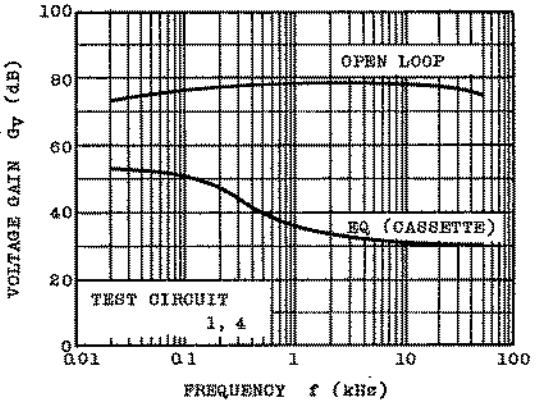
V_{OUT} – V_{IN}



I_{CC}, V_{OM}, G_{VO} – V_{CC}



G_V – f



APPLICATION CIRCUIT

NAB 9.8cm/sec EQUALIZER AMPLIFIER FOR CAR-STEREO