

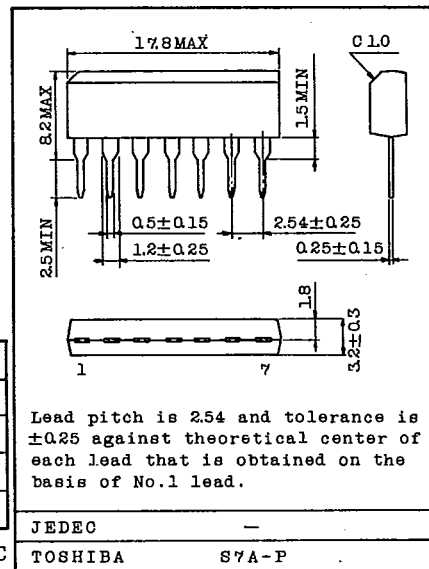
# TA7120P

T-74-09-01

## GENERAL PURPOSE PRE-AMPLIFIER, VOLTAGE AMPLIFIER.

- Low Noise. :  $V_{NI}=2\mu V_{rms}$  (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

S7A-P

### MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	VCC	15	V
Power Dissipation (Note)	Pd	200	mW
Operating Temperature	Topr	-30 ~ 75	°C
Storage Temperature	Tstg	-55 ~ 125	°C

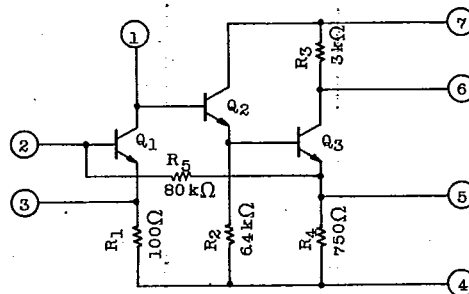
Note: Derated above Ta=25°C in the proportion of 2mW/°C

### ELECTRICAL CHARACTERISTICS (VCC=8V, RL=5.1kΩ, Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	ICC	1	VIN=0	-	1.5	2.1	mA
Voltage Gain (Open Loop)	GVO	1	f=1kHz, VIN=-80dBm	75	78	82	dB
Voltage Gain (Closed Loop) (Note)	Gv	2	f=1kHz, RNF=35kΩ, VOUT=1Vrms	46.5	-	52.5	dB
Maximum Output Voltage	VOM	3	f=1kHz, THD=1%	1.0	-	-	Vrms
Equivalent Input Noise Voltage	VNI	3	NAB Equalizer Rg=2.2kΩ, f=1kHz	-	2.0	-	μVrms

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

### EQUIVALENT CIRCUIT



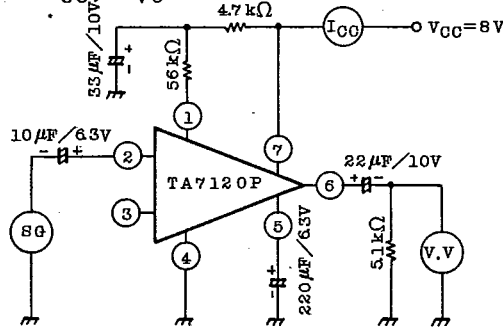
AUDIO LINEAR IC

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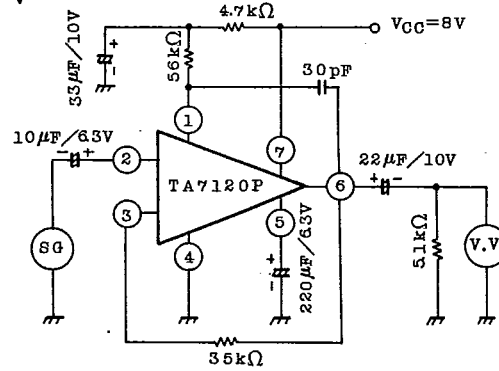
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## TEST CIRCUIT

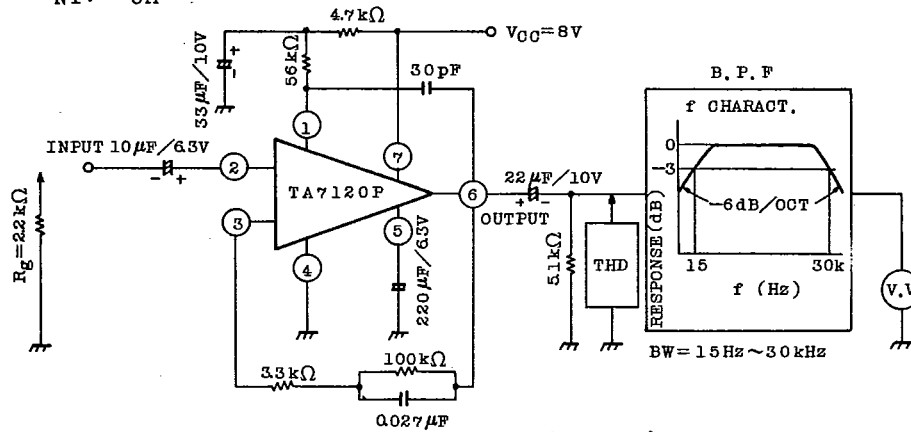
1.  $I_{CC}$ ,  $G_V$



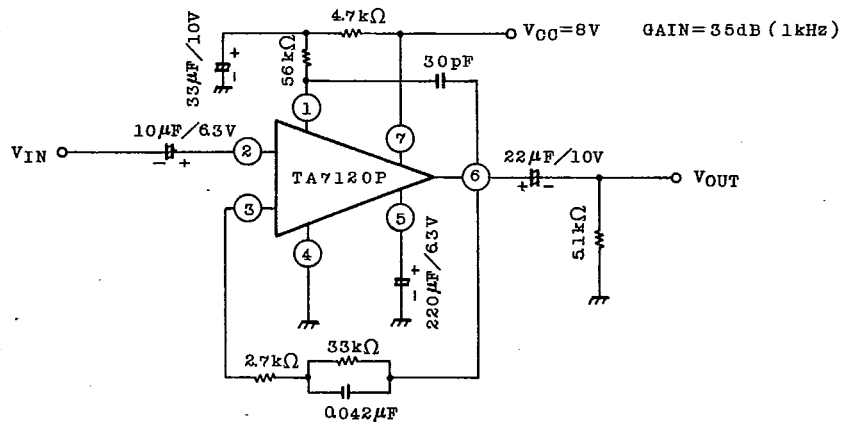
2.  $G_V$



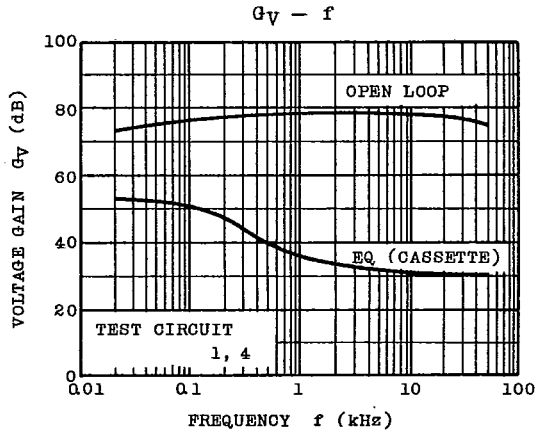
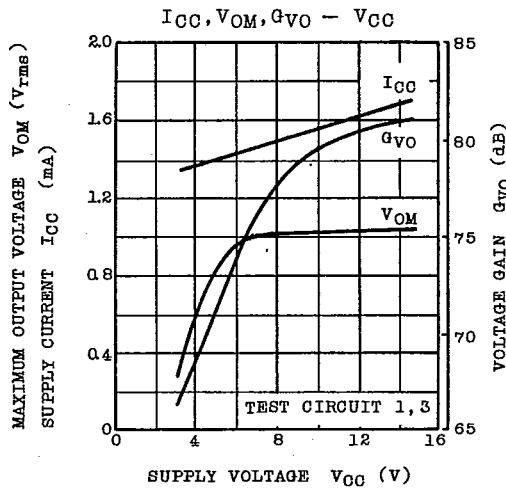
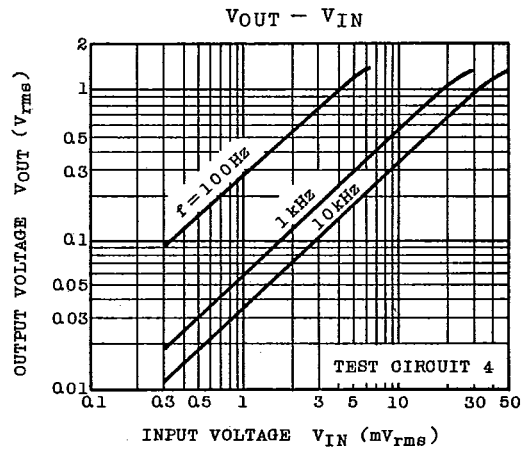
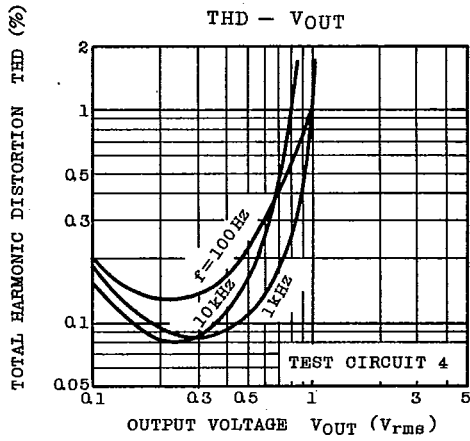
3.  $V_{NI}$ ,  $V_{OM}$



4. EQUALIZER AMPLIFIER FOR CASSETTE TAPE RECORDER

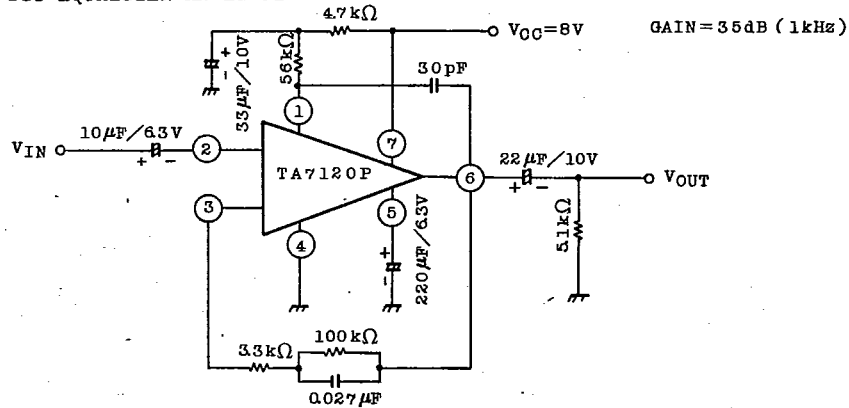


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## APPLICATION CIRCUIT

NAB 9.8cm/sec EQUALIZER AMPLIFIER FOR CAR-STEREO



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