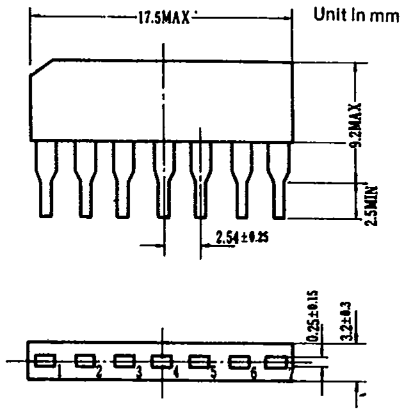
T-74-05-01

ECG1087

GENERAL-PURPOSE PRE-AMPLIFIER MODULE

- o General-Purpose Pre-Amplifier
- o Voltage Amplifier Application

- Low Noise
- Operates from a Wide Range of Power Supplies
- High Voltage Gain

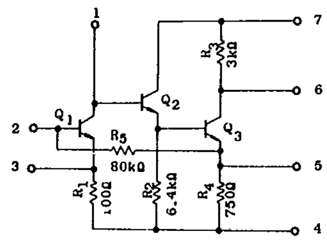


MAXIMUM RATINGS (Ta = 25℃)

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

(Note)
Derated above
Ta=25℃ in the
proportion of 2mW/℃

EQUIVALENT CIRCUIT



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

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I_{CC}	1	V_{IN}=0	-	1.5	2.1	mA
Voltage Gain (1) (Open Loop)	$G_{V(1)}$	1	f=1kHz	75	78	82	dB
Voltage Gain (2) (Closed Loop)	$G_{V(2)}$	2	f=1kHz, R_{NF}=35kΩ	46.5	-	52.5	dB
Max. Output Voltage	V_{OM}	2	f=1kHz, KF=1% (below)	1.0	-	-	V_{rms}
Equivalent Input Noise Voltage	V_{NI}	3	R_g=2.2kΩ NAB 1kHz Gain Converted with G_V (1kHz)	-	2.0	-	μV_{rms}

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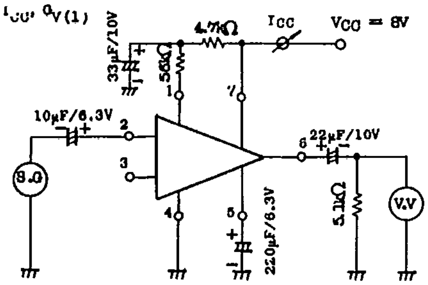
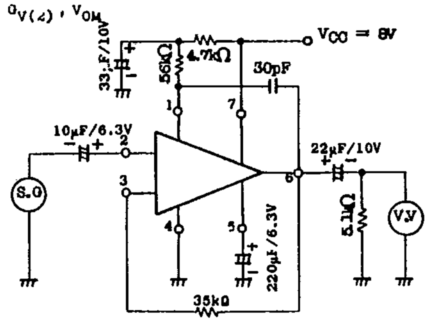
TEST CIRCUIT

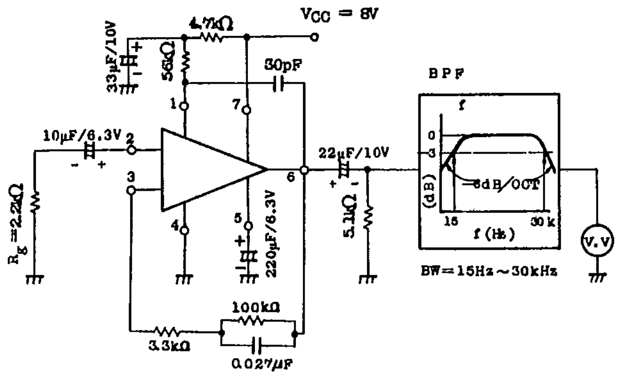
1. I_{CC}, $G_{V(1)}$



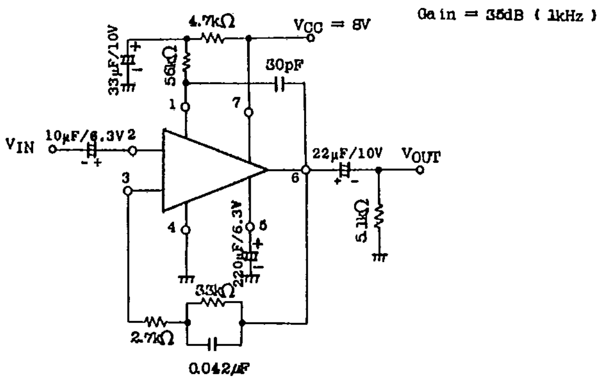
2. $G_{V(2)}$, V_{OM}



3. V_{NI}



4. EQUALIZER AMPLIFIER FOR CASSETTE TAPE RECORDER



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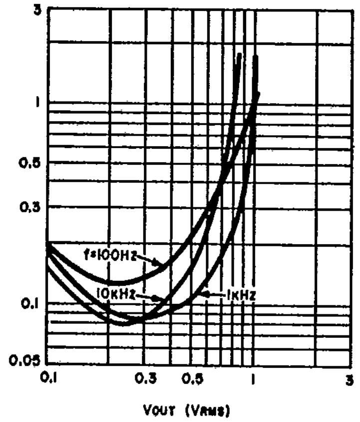
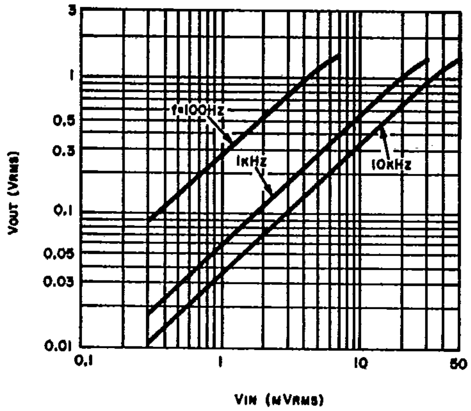
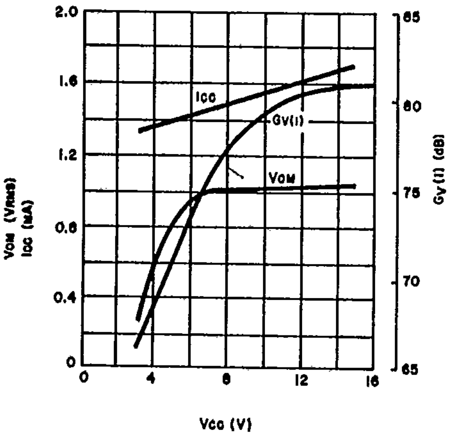
THD — V_{OUT} (TEST CIRCUIT 4)



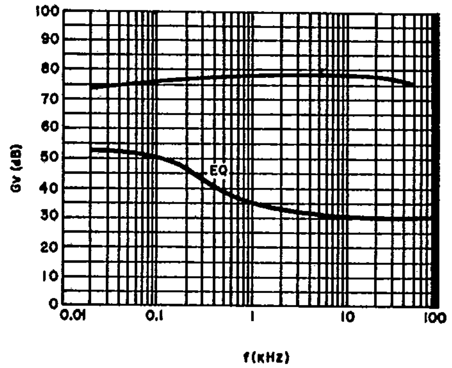
V_{OUT} — V_{IN} (TEST CIRCUIT 4)



I_{CC}, V_{OM}, $G_{V(1)}$ — V_{CC} (TEST CIRCUIT 1,2)



G Z— F (TEST CIRCUIT 1,4)



APPLICATION CIRCUIT

NAB 9.8cm/sec EQUALIZER AMPLIFIER FOR CAR-STEREO

Gain = 35dB (1kHz)