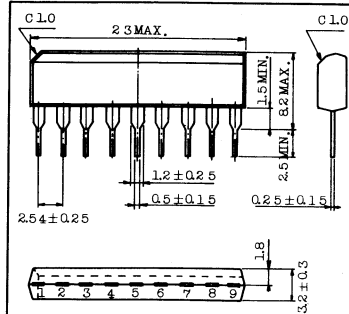


**PRE-AMPLIFIER (RECORDING OR PLAYING-BACK)
WITH ALC TRANSISTOR FOR TAPE RECORDER.**

- Low Noise : $V_{NI} = 1.3 \mu V_{rms}$ (Typ.)
- Wide ALC Range
- Wide Operating Supply Voltage Range : $V_{CC} = 3 \sim 15V$
- TA7137P-ST is Matched ALC Characteristic for Stereo Tape Recorder.

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 5-23B

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	VCC	15	V
Power Dissipation (Note)	PD	200	mW
Operating Temperature	Topr	-25 ~ 75	°C
Storage Temperature	Tstg	-55 ~ 125	°C

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

ELECTRICAL CHARACTERISTICS (VCC=5V, Ta=25°C)

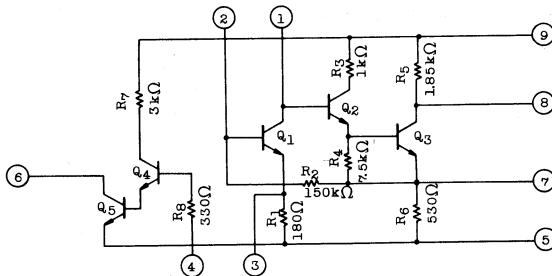
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	ICC	1	VIN=0, ALC off	-	1.3	1.75	mA
Voltage Gain (Open Loop)	GVO	1	VIN=-80dBm, f=1kHz	67	69	-	dB
Voltage Gain (Closed Loop) (Note)	Gv	2	VOUT=0.7Vrms, f=1kHz	33	35	37	dB
Maximum Output Voltage	VOM	2	f=1kHz, THD=1%	0.7	0.9	-	Vrms
Equivalent Input Noise Voltage	VNI	3	NAB equalizer Rg=22kΩ, f=1kHz	-	1.3	2.5	μVrms
Input Resistance	RIN	-	f=1kHz	-	150	-	kΩ
Q5 Saturation Voltage	V6(ON)	4	-	-	60	100	mV

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

TA7137

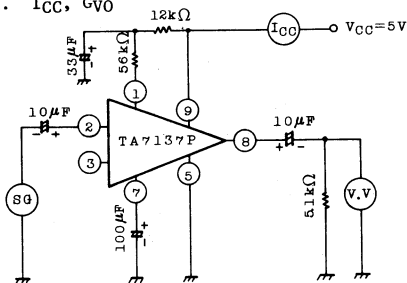
TECHNICAL DATA

EQUIVALENT CIRCUIT

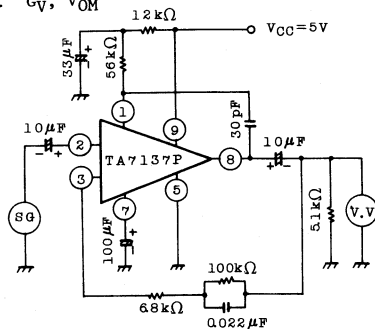


TEST CIRCUIT

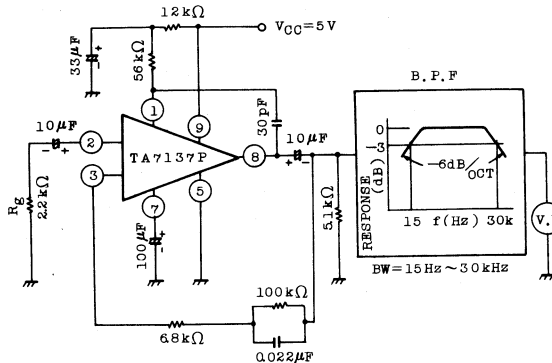
1. I_{CC}, G_{VO}



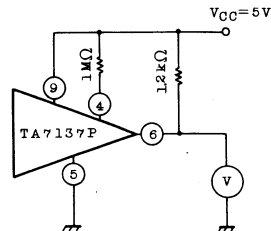
2. G_V, V_{OM}



3. V_{NI}



4. $V_6(ON)$

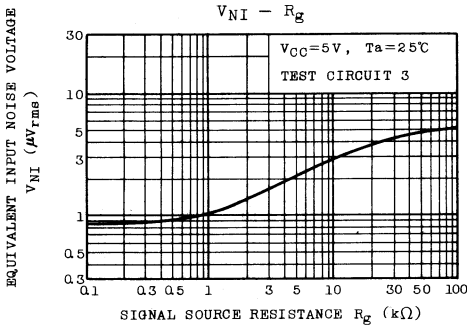
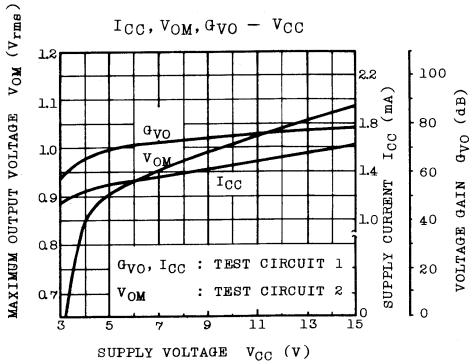
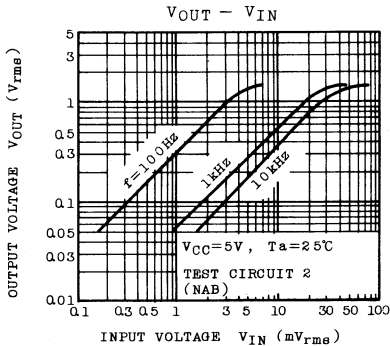
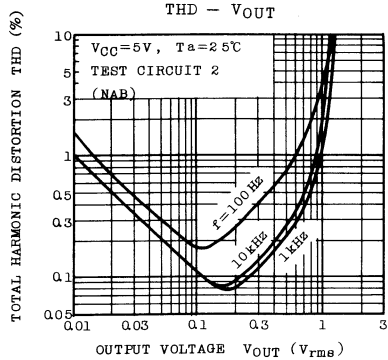
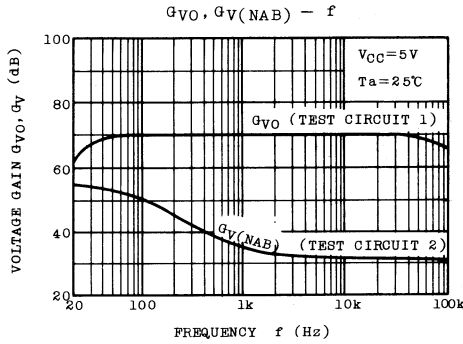




INTEGRATED CIRCUIT

TA7137P, TA7137P-ST

TECHNICAL DATA



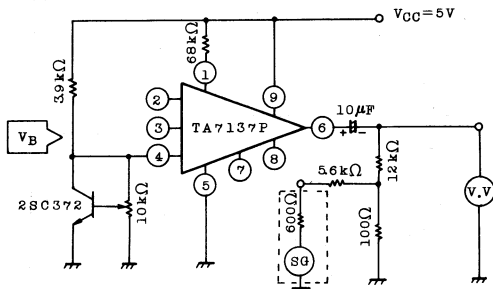


INTEGRATED CIRCUIT

TA7137P, TA7137P-ST

TECHNICAL DATA

TEST CIRCUIT FOR ALC GAIN REDUCTION



ALC-GAIN REDUCTION (ALC-G.R) TEST METHOD

1. Above Test Circuit the V.V Indicator must adjust -35dBm at without IC.
2. ALC-G.R Can classified from A₁ to C₆, and then V_B fixed 1.16V at Ta=25°C. (ALC-G.R=(V.V Indicated) -35dB)

ALC-GAIN REDUCTION IS CLASSIFIED AS FOLLOWS.

TYPE	G _v (dB)		ALC-G.R (dB)	
	MIN.	MAX.	MIN.	MAX.
TA7137P-A1	33	35	-16.0	-20.0
" A2			-18.5	-22.5
" A3			-21.0	-25.0
" A4			-24.0	-28.0
" A5			-27.0	-31.0
" A6			-30.0	-34.0
TA7137P-B1	34	36	-16.0	-20.0
" B2			-18.5	-22.5
" B3			-21.0	-25.0
" B4			-24.0	-28.0
" B5			-27.0	-31.0
" B6			-30.0	-34.0
TA7137P-C1	35	37	-16.0	-20.0
" C2			-18.5	-22.5
" C3			-21.0	-25.0
" C4			-24.0	-28.0
" C5			-27.0	-31.0
" C6			-30.0	-34.0

TA 7137