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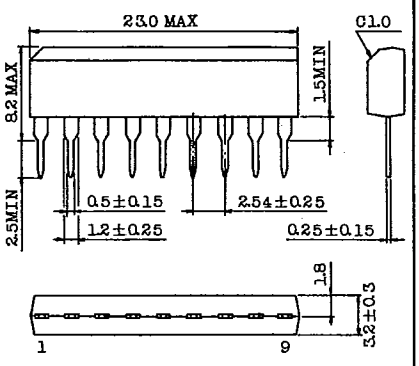
TA7359P
TA7727P

AUDIO DUAL PREAMPLIFIER.

The TA7359P and TA7727P are dual low noise pre amplifier improved on operational amplifier (4558 type) for consumer applications.

- Wide Operating Supply Voltage Range
  : V_{CC}, V_{EE}=±1.5V~±18.0V
- Low Noise, Low Distortion
  : V_{N1}=1μV_{rms}(Typ.)
  (R_g=2.2kΩ, NAB, f=1kHz, G_V=40dB)
  THD=0.005%, (V_{OUT}=2.0Vrms)
- The Recommended Closed Loop Voltage Gain in More Than 20dB.

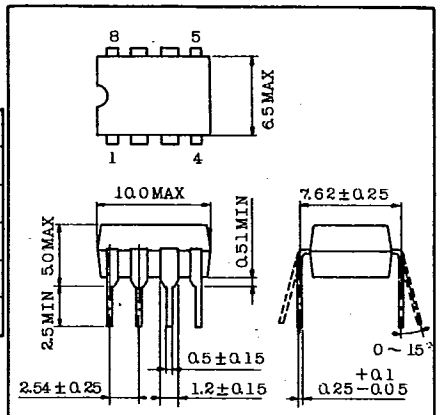
Unit in mm



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	89A-P

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 and No.8 leads.

JEDEC	—
TOSHIBA	3D8A-P

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Supply Voltage		V_{CC}	±22	V
Power Dissipation	Note 1	P_D 1	750	mW
	Note 2	P_D 2	500	mW
Operating Temperature		T_{opr}	-25~75	°C
Storage Temperature		T_{stg}	-55~150	°C

Note 1 TA7359P : Derated above Ta=25°C in the proportion of 6mW/°C.

Note 2 TA7727P : Derated above Ta=25°C in the proportion of 4mW/°C.

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, V_{CC}=4.5V, V_{EE}=-4.5V, f=1kHz, Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}	1	V_{IN}=0V	-	2.7	4.0	mA
Equivalent Input Noise Voltage	V_{NI}	1	R_g=2.2kΩ, NAB, G_V=40dB, BW=20Hz~30kHz	-	1.0	1.3	μV_{rms}
Open Loop Voltage Gain	G_{VO}	1	V_{OUT}=2.0V_{rms}	75	85	-	dB
Total Harmonic Distortion	THD	1	V_{OUT}=2.0V_{rms}	-	0.005	0.01	%
Maximum Output Voltage	V_{OM}	1	THD=0.5%	2.0	2.7	-	V_{rms}
Channel Cross Talk	C.T.	1	R_g=2.2kΩ V_{OUT}=2.0V_{rms}	65	76	-	dB
Input Bias Current	I_{IB}	-	-	-	0.65	-	μA

DC CHARACTERISTICS

(V_{CC}=4.5V, V_{EE}=-4.5V, R_g=2.2kΩ, Terminal Voltage at No Signal) (Unit in mV)

TERMINAL No. / TYPE	1	2	3	4	5	6	7	8	9
TA7359P	V_{CC}	15	75	75	V_{EE}	75	75	15	V_{CC}
TA7727P	15	75	75	V_{EE}	75	75	15	V_{CC}	

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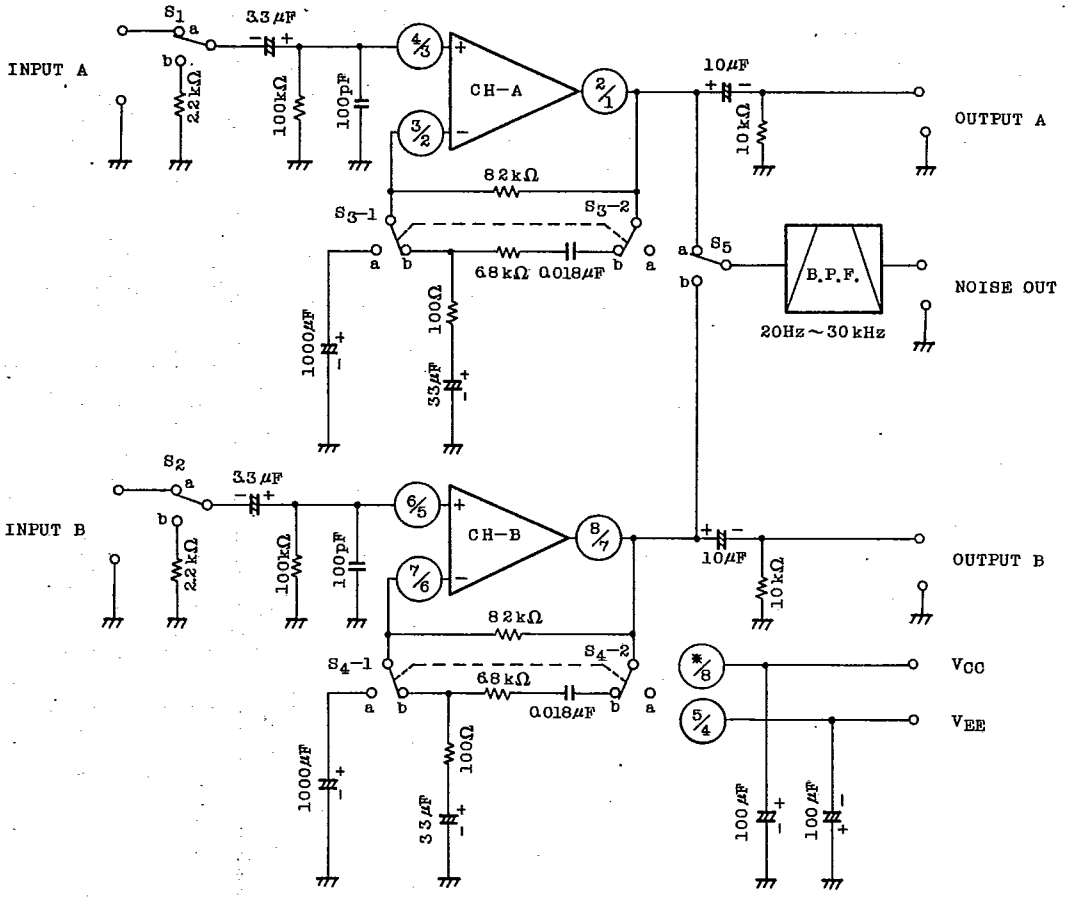
TEST CIRCUIT 1



* 1 PIN, 9 PIN

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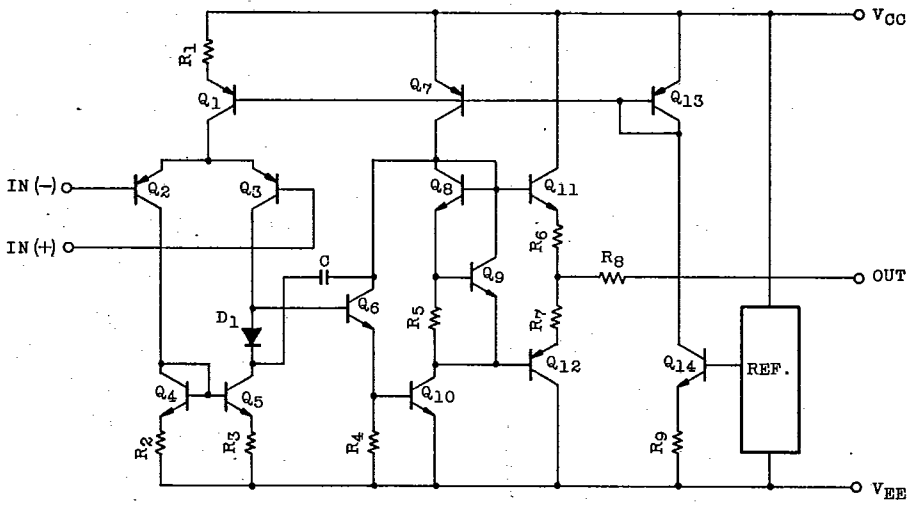
EQUIVALENT CIRCUIT



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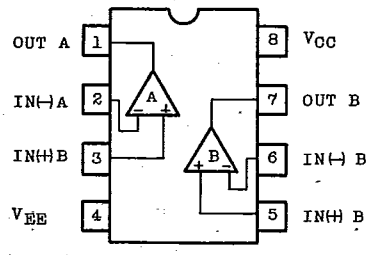
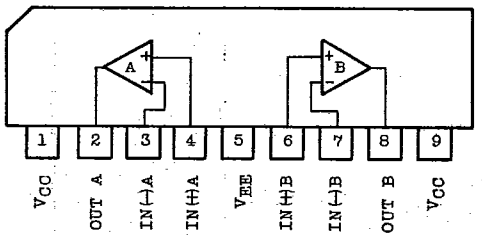


TA7359P



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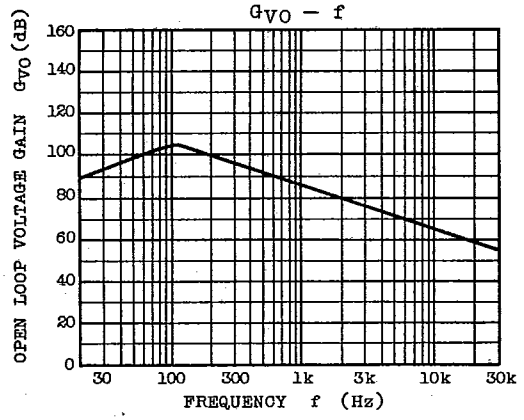
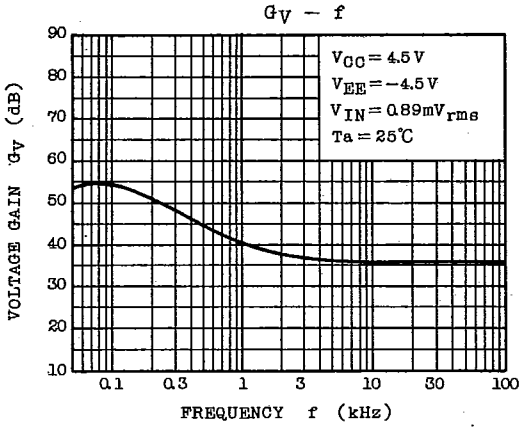
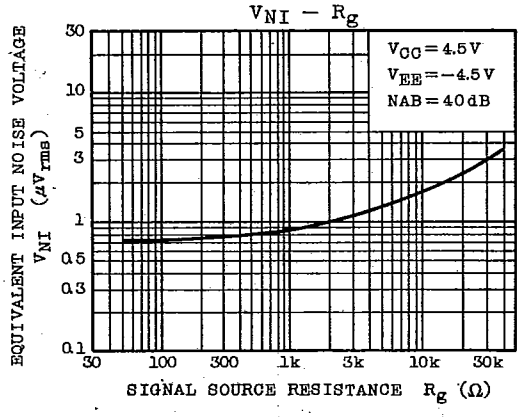
G_{VO} – f



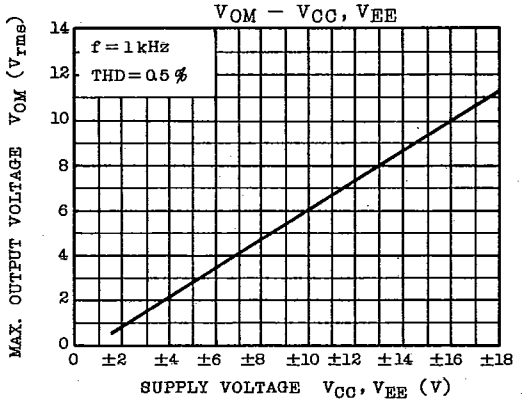
G_V – f



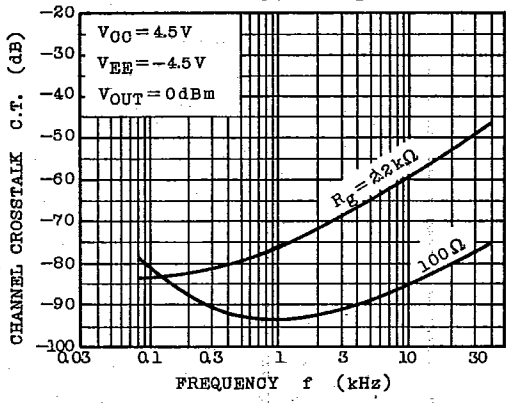
V_{NI} – R_g



V_{OM} – V_{CC}, V_{EE}



C.T. – f



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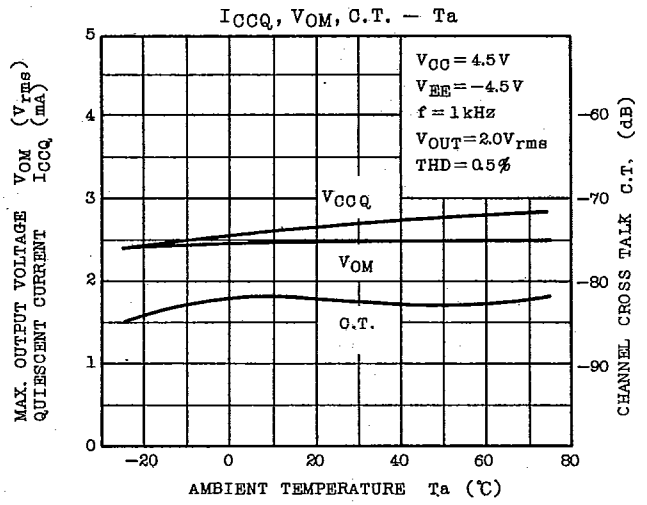

APPLICATION