

## TA7205AP

## 5.8W AUDIO POWER AMPLIFIER

## FOR CAR-STEREO, CAR-RADIO OUTPUT

## . Output Power:

$P_{OUT}=5.8W$ (Typ.) at  $V_{CC}=13.2V$ ,  $R_L=4\Omega$ , THD=10%

$P_{OUT}=9.2W$ (Typ.) at  $V_{CC}=13.2V$ ,  $R_L=2\Omega$ , THD=10%

## . Maximum Output Power:

$P_{OM}=9.5W$ (Typ.) at  $V_{CC}=13.2V$ ,  $R_L=4\Omega$

## . Low Distortion:

THD=0.15% at  $P_{OUT}=1W$ ,  $G_v=55dB$

THD=0.07% at  $P_{OUT}=1W$ ,  $G_v=44dB$

. Wide Operating Supply Voltage Range :  $V_{CC}=9\sim 18V$ 

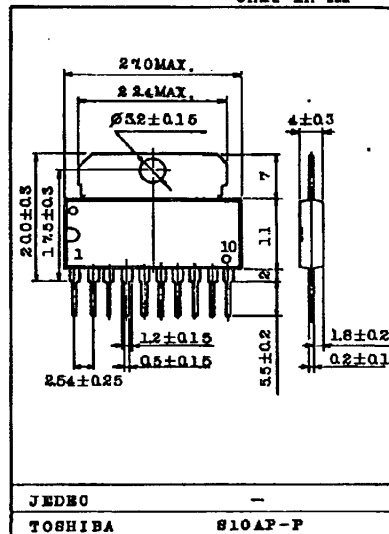
## . Low Noise.

## . Current Limiting for Short-Circuit Protection.

## . Built in Thermal Short-down Circuit.

## . Built in Surge Voltage Protection Circuit.

Unit in mm



## MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Operating Supply Voltage	$V_{CC}$	18	V
Quiescent Supply Voltage	$V_{CCQ}$	25	V
Output Current (Peak)	$I_O$ (peak)	4.5	A
Power Dissipation	$P_D$	7.5	W
Operating Temperature	$T_{opr}$	-20 ~ 75	°C
Storage Temperature	$T_{stg}$	-55 ~ 150	°C

(Minimum Operating Voltage is 9V)

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## ELECTRICAL CHARACTERISTICS

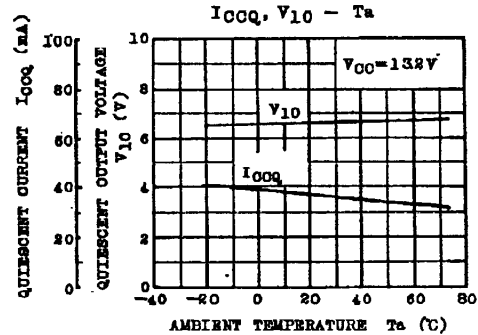
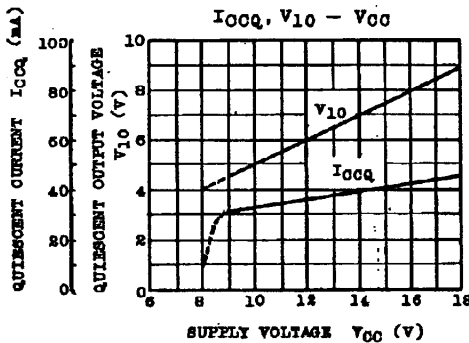
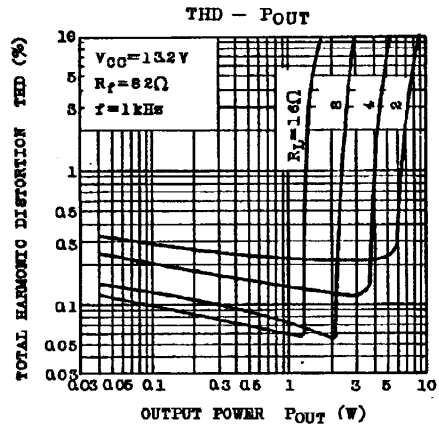
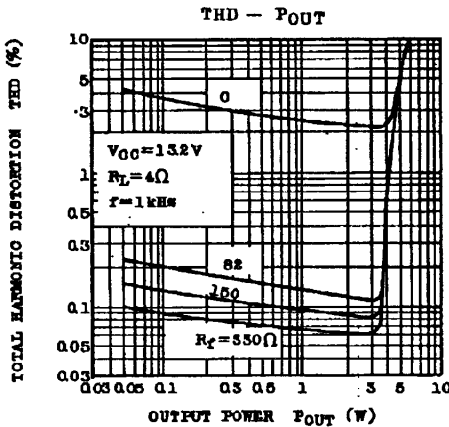
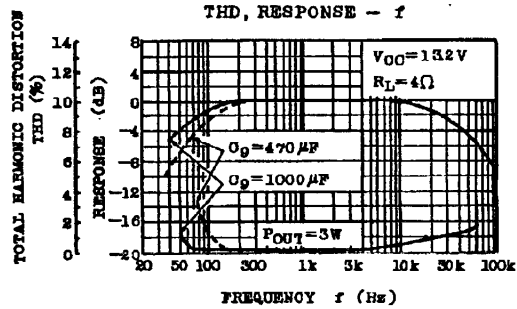
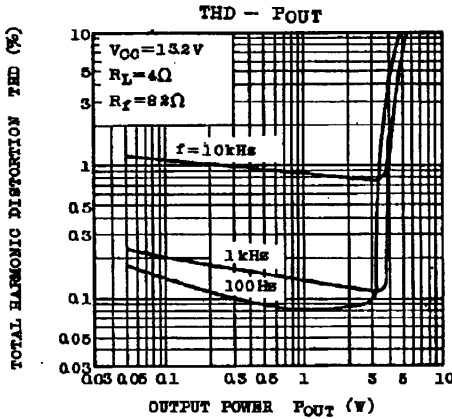
(Unless otherwise specified  $V_{CC}=12.5V$ ,  $R_L=4\Omega$ ,  $R_g=600\Omega$ ,  $R_f=82\Omega$ ,  $f=1kHz$ ,  $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	ICQ	-	-	-	-	60	mA
			$V_{CC}=18V$	-	-	80	
Output Power	P <sub>OUT</sub>	-	THD=10%	4.5	5	-	W
			$V_{CC}=13.2V$ , THD=10%	-	5.8	-	
			$V_{CC}=13.2V$ , $R_L=2\Omega$ , THD=10%	-	9.2	-	
Maximum Output Power	P <sub>OM</sub>	-	$V_{CC}=13.2V$	-	9.5	-	W
Total Harmonic Distortion	THD	-	P <sub>OUT</sub> =1W	-	0.15	1.0	%
			P <sub>OUT</sub> =100mW	-	0.2	1.0	
			P <sub>OUT</sub> =1W, $R_L=2\Omega$	-	0.25	1.0	
Voltage Gain (Note)	G <sub>V</sub>	-	$V_{IN}=2.45mV_{rms}$	52	55	58	dB
Input Resistance	R <sub>IN</sub>	-	$V_{OUT}=2V_{rms}$	30	40	-	k $\Omega$
Output Noise Voltage	V <sub>NO</sub>	-	$R_g=10k\Omega$ , BW=50 ~ 20kHz	-	-	3.5	mV

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

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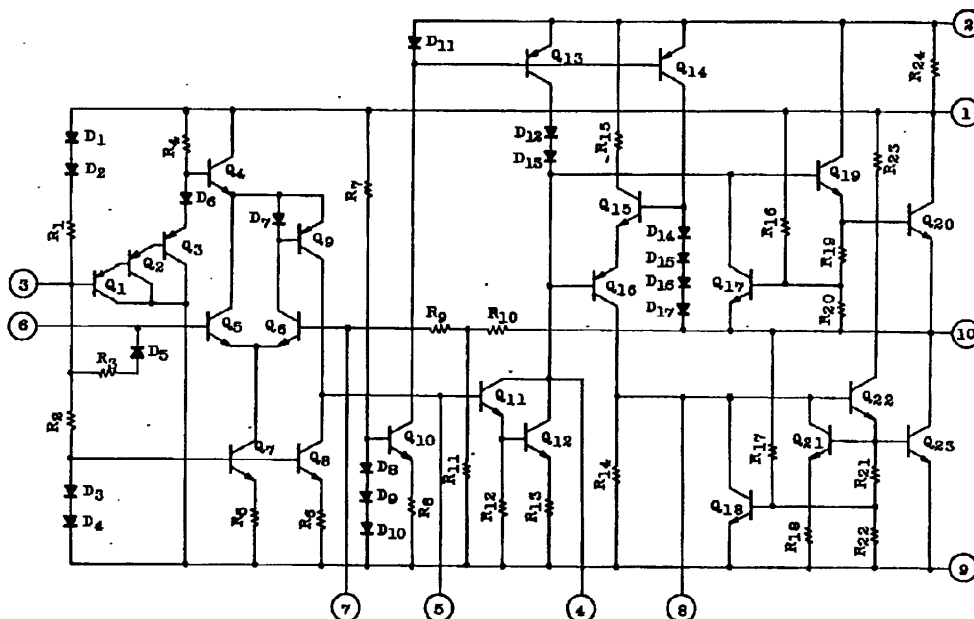


AUDIO LINEAR IC

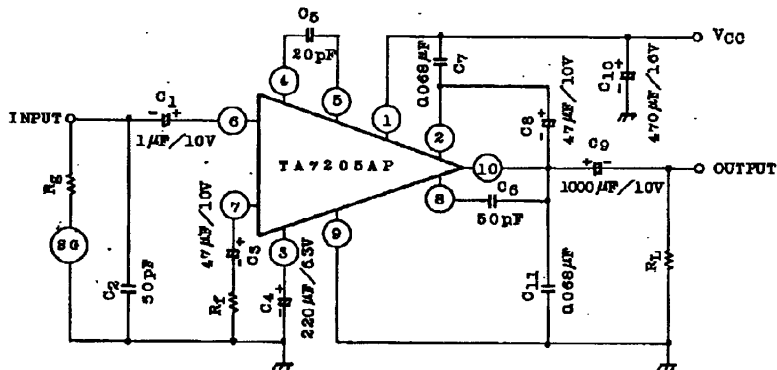
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## EQUIVALENT CIRCUIT



## TEST AND APPLICATION CIRCUIT



Note: Metal Tab must be connected to GND level or Non-connection.

C7 and C11 are polyester film capacitors.

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