

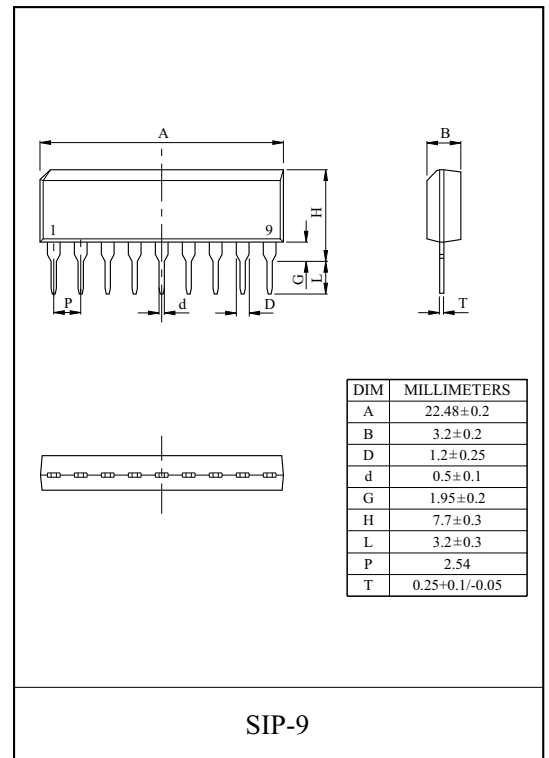
AUDIO POWER AMPLIFIER

FEATURES

- Designed for Output Power, Radio and Portable.
- Cassette Tape Recorder.
- Output Power : $P_{OUT}=500mW(Typ.)$
at $V_{CC}=6V, R_L=8\Omega, THD=10\%$
- Wide Operating Supply Voltage Range
: $V_{CC}=4 \sim 14V$
- Low Quiescent Current.
- Without Heat Sink.

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	14	V
Output Current (Peak)	$I_{O(Peak)}$	0.5	A
Power Dissipation	P_D	750	mW
Operating Temperature	T_{opr}	-25 ~ 75	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$



ELECTRICAL CHARACTERISTICS

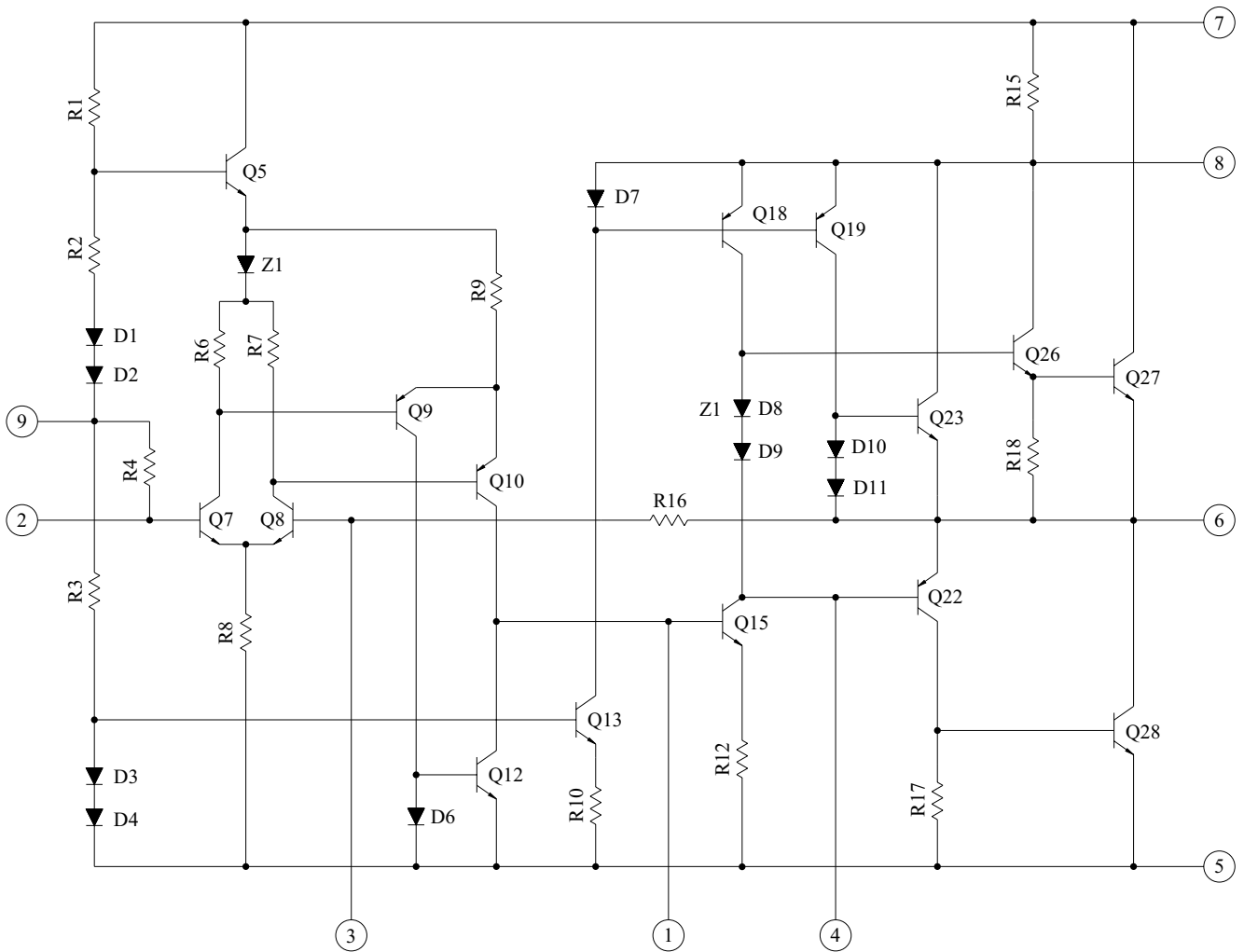
(Unless otherwise specified, $V_{CC}=6V, f=1kHz, T_a=25^\circ C, R_L=8\Omega, R_g=600\Omega, R_f=47\Omega$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}	-	$V_{CC}=4V$	7	-	-	mA
			$V_{CC}=6V$	-	15	20	
			$V_{CC}=9V$	-	17	23	
Output Power	P_{OUT}	-	THD=10%	0.45	0.5	-	W
			$V_{CC}=9V, R_L=16\Omega$	-	0.70	-	
Total Harmonic Distortion	THD	-	$P_{OUT}=100mW$	-	0.3	1.0	%
Open Loop Voltage Gain	G_{VO}	-	$R_f=0$	65	71	-	dB
Closed Loop Voltage Gain (Note)	G_V	-	$R_f=47\Omega$	47	50	52	dB
Input Resistance	R_{IN}	-	-	-	15	-	$k\Omega$
Output Noise Voltage	V_{NO}	-	$R_g=10k\Omega, BW=50 \sim 20kHz$	-	0.4	1.0	mV_{rms}

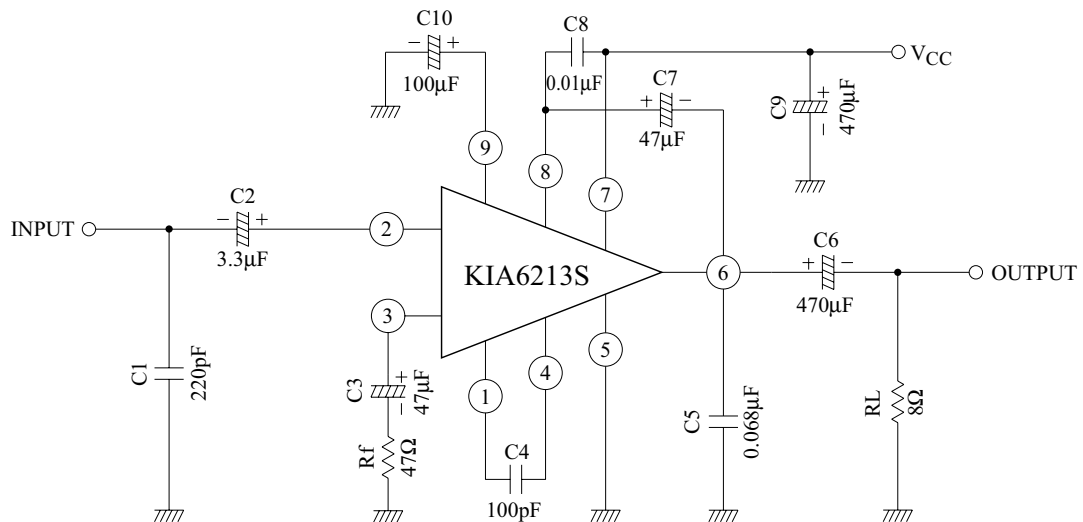
Note) In regard to the value of closed loop voltage gain, it is possible to be classified.

KIA6213S

EQUIVALENT CIRCUIT

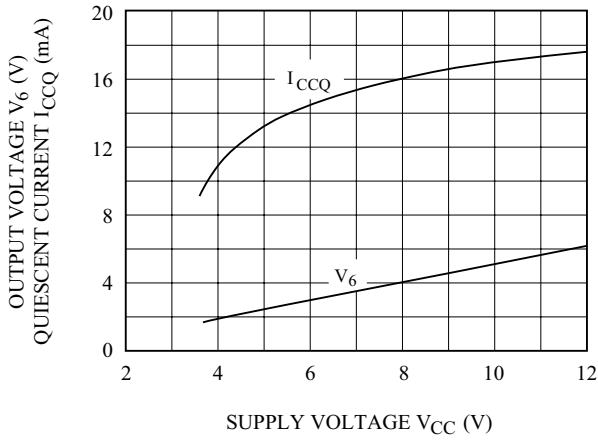


TEST CIRCUIT

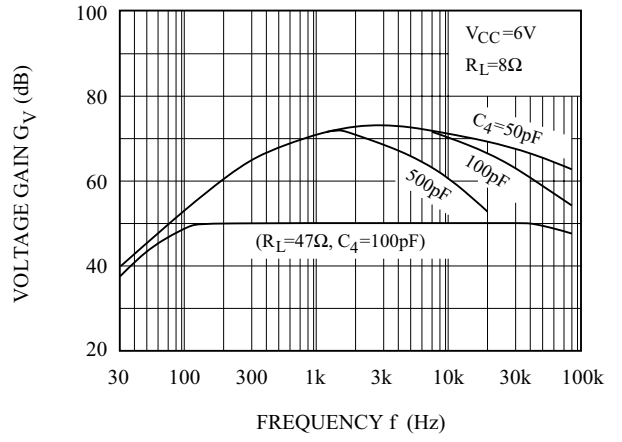


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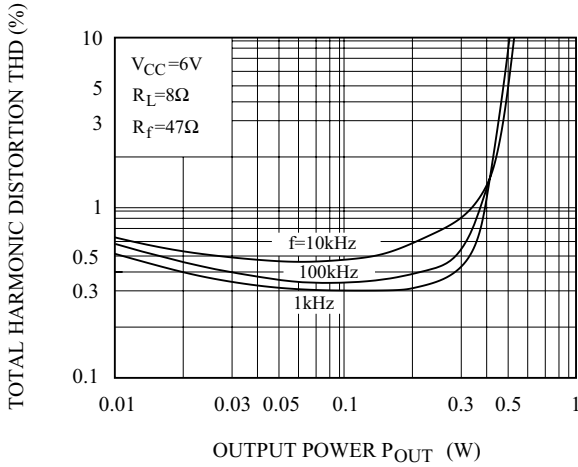
$I_{CCQ}, V_6 - V_{CC}$



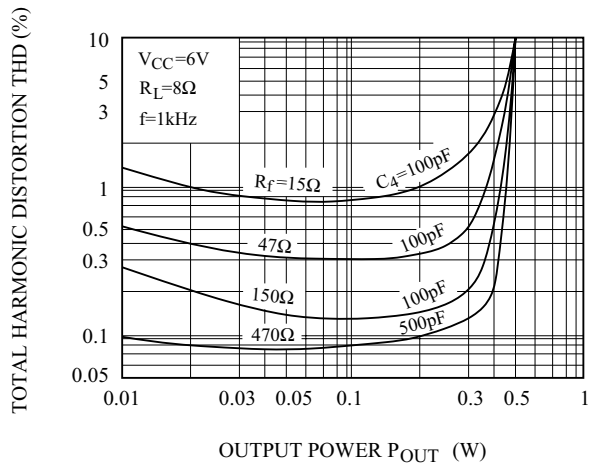
$G_V - f$



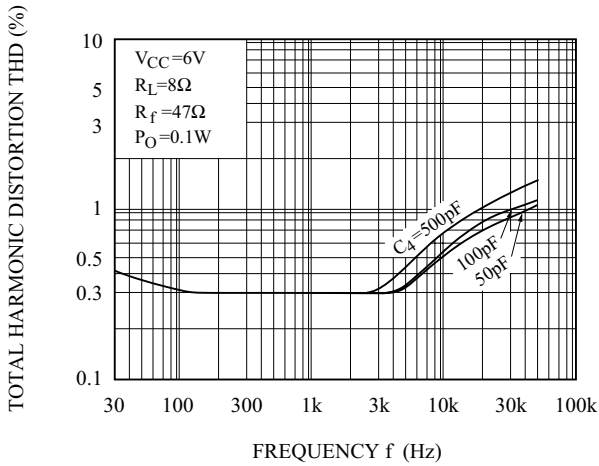
THD - P_{OUT}



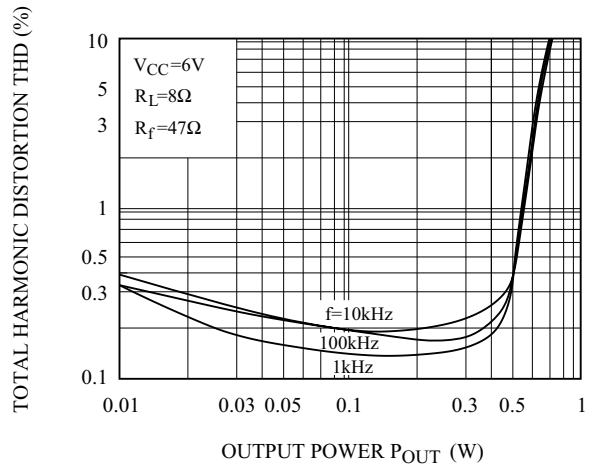
THD - P_{OUT}



THD - f

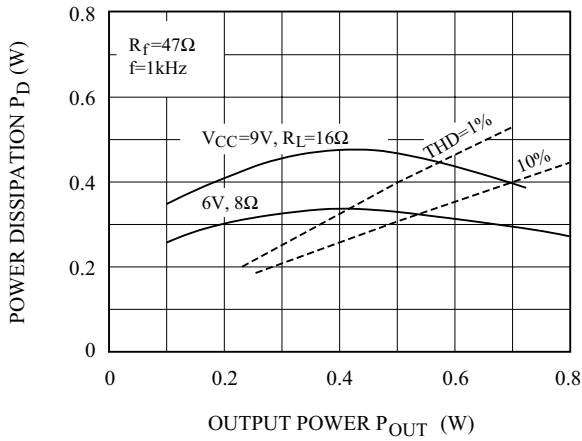


THD - P_{OUT}

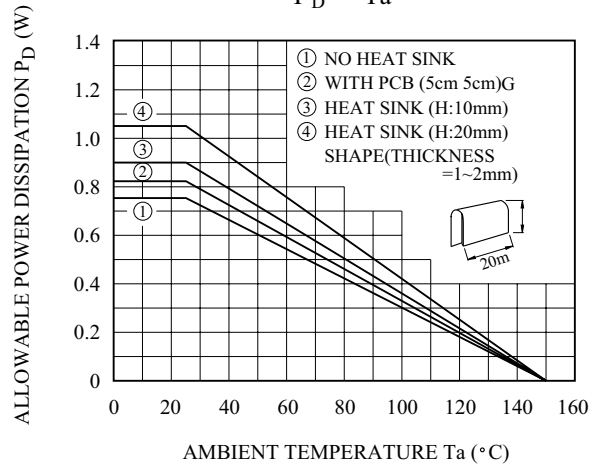


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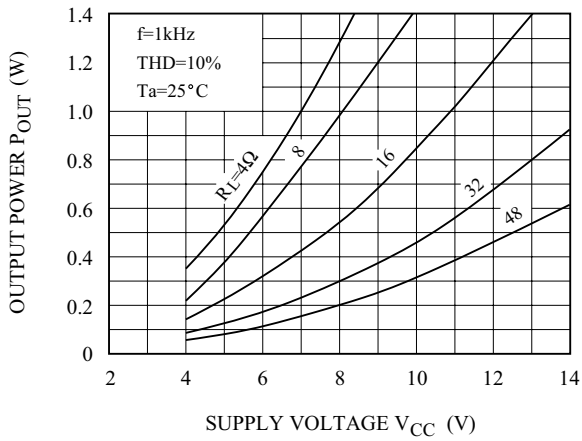
$P_D - P_{OUT}$



$P_D - T_a$



$P_{OUT} - V_{CC}$



$P_D \text{ MAX} - V_{CC}$

