

KA2211**LINEAR INTEGRATED CIRCUIT****5.8W DUAL POWER AMPLIFIER**

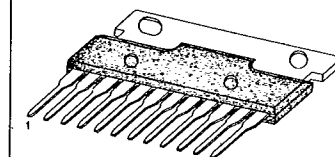
The KA2211 is a dual audio power amplifier for consumer application. It is designed for high power, low dissipation and low noise.

It also contains various kind of protectors. It is suitable for car audio power amplifier with high performance.

FEATURES

- Operating supply voltage range: $V_{CC}=10V \sim 18V$
- High power (Dual)
 $P_o = 5.8W$ (Typ) at $V_{CC} = 13.2V$, $R_L = 4\Omega$, THD = 10%
- Low distortion (Dual)
THD = 0.06% (Typ) at $V_{CC} = 13.2V$, $R_L = 4\Omega$, $P_o = 1W$, $A_v = 52dB$
- Low noise (Dual)
 $V_{No} = 0.7mV$ (Typ) at $V_{CC} = 13.2V$, $R_L = 4\Omega$, $R_g = 10K\Omega$,
 $A_v = 52dB$, BW(-3dB) = 20Hz ~ 20KHz
- Protector; Thermal shut down
Over voltage protection
DC short protection

12 SIP H/S



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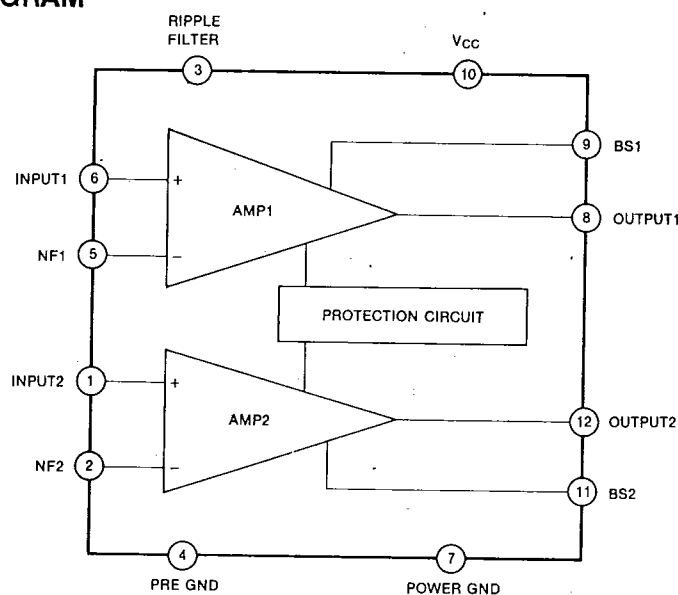
BLOCK DIAGRAM

Fig. 1



SAMSUNG SEMICONDUCTOR

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KA2211

LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Condition	Value	Unit
Supply Voltage	V_{CC} (surge)	$t = 0.2 \text{ sec}$	45	V
Maximum Supply Voltage	V_{CC} (max 1)	$V_i = 0$	25	V
Maximum Supply Voltage	V_{CC} (max 2)	with signal	18	V
Maximum Output Current	I_o (peak)		3.5	A
Power Dissipation	P_d		15	W
Operating Temperature	T_{opr}		$-20 \sim +75$	$^\circ\text{C}$
Storage Temperature	T_{stg}		$-40 \sim +150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

($T_a = 25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $R_g = 600\Omega$, $f = 1\text{KHz}$, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I_{CC}	$V_i = 0$		80	145	mA
Output Power	P_o	THD = 10%	5	5.8		W
Total Harmonic Distortion	THD	$P_o = 1\text{W}$		0.06	0.3	%
Voltage Gain	A_v	$V_o = 0\text{dBm}$	50	52	54	dB
Channel Balance	CB	$V_o = 0\text{dBm}$	-1	0	1	dB
Output Noise Voltage	V_{NO}	$R_g = 10\text{K}\Omega$, BW(-3dB) = 20Hz ~ 20KHz		0.7	1.5	mV
Ripple Rejection Ratio	RR	$f = 120\text{Hz}$, $V_r = 0\text{dBm}$	40	52		dB
Cross Talk	CT	$V_o = 0\text{dBm}$		57		dB
Input Resistance	R_i	$f = 1\text{KHz}$		33		K Ω



LINEAR INTEGRATED CIRCUIT

TEST AND APPLICATION CIRCUIT

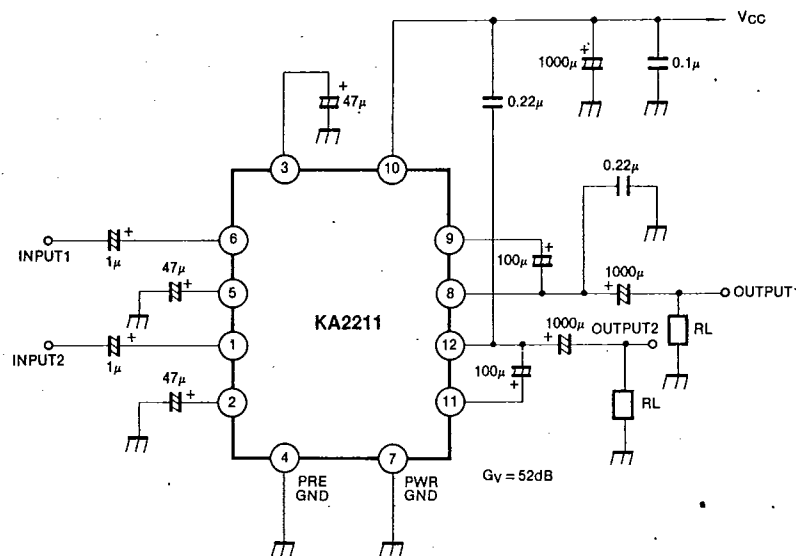
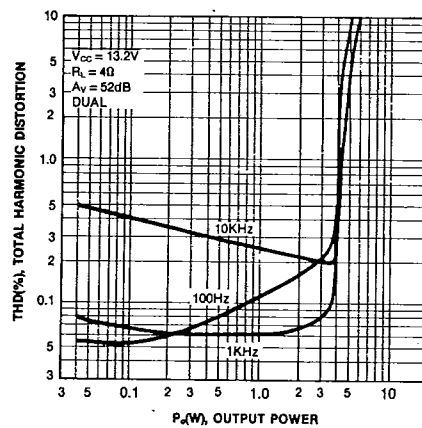
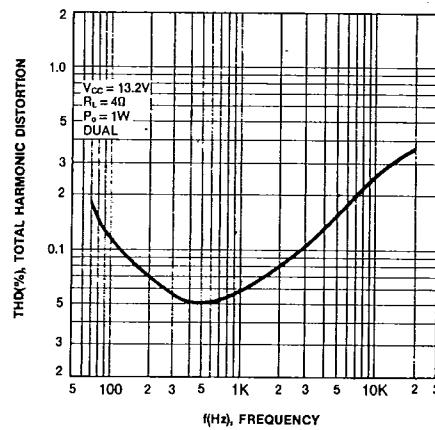


Fig. 2

TOTAL HARMONIC DISTORTION-OUTPUT POWER



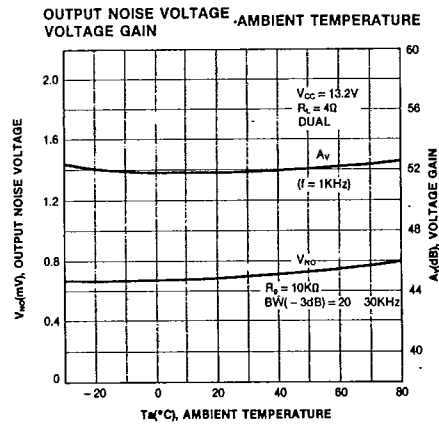
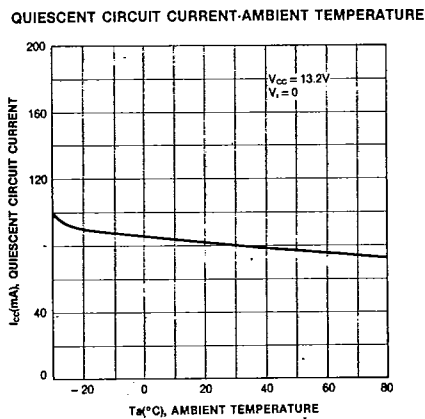
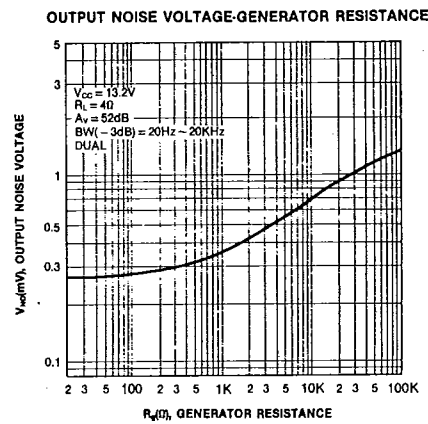
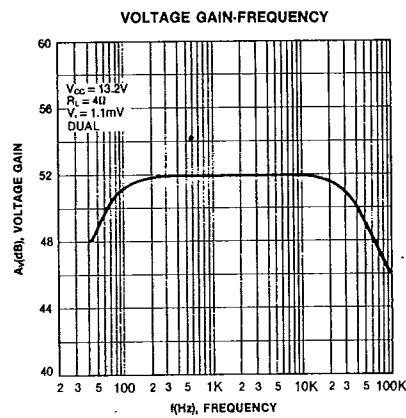
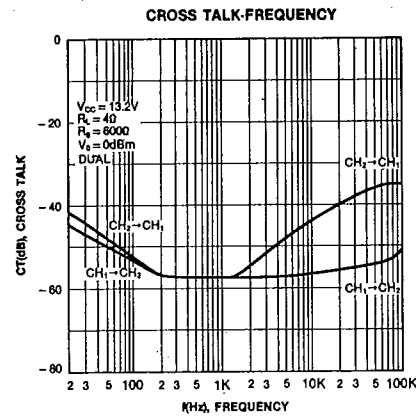
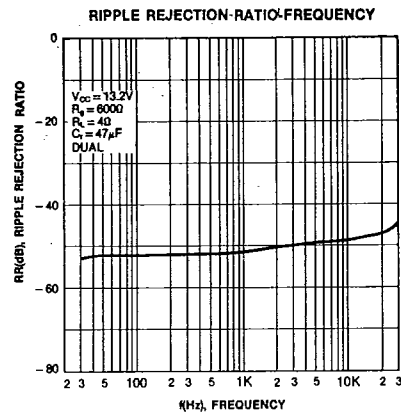
TOTAL HARMONIC DISTORTION-FREQUENCY



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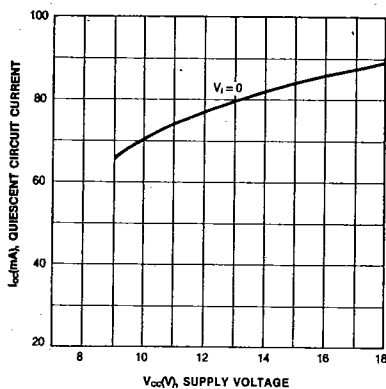


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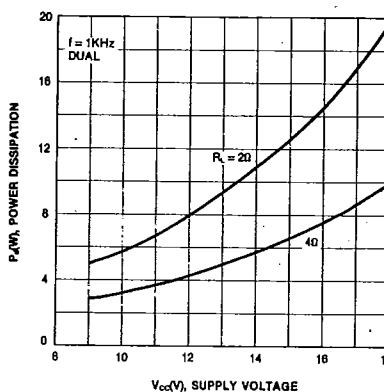
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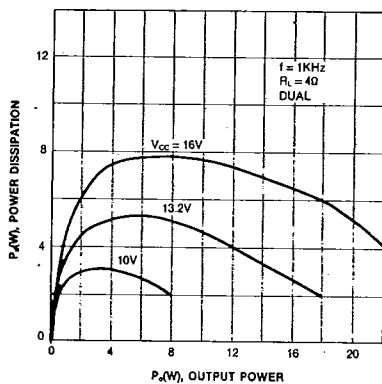
QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



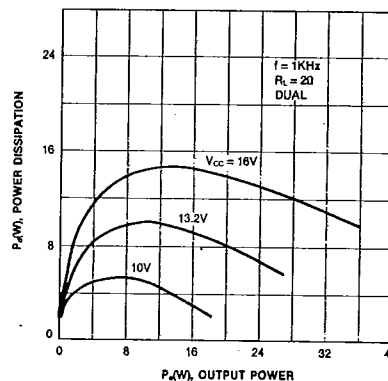
POWER DISSIPATION-SUPPLY VOLTAGE



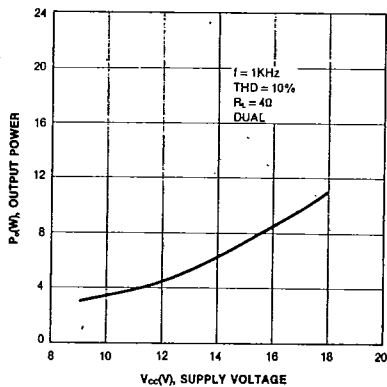
POWER DISSIPATION-OUTPUT POWER



POWER DISSIPATION-OUTPUT POWER



OUTPUT POWER-SUPPLY VOLTAGE



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