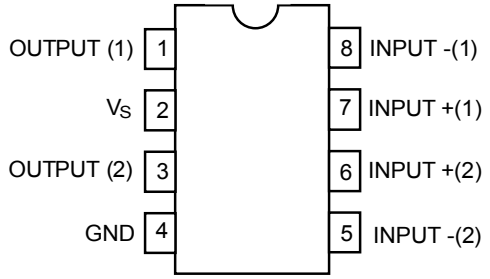
DUAL LOW-VOLTAGE POWER AMPLIFIER

- **Supply voltage down to 1,8 V**
- **Low crossover distortion**
- **Low quiescent current**
- **Bridge or stereo configuration**

The GMA2822M is a monolithic integrated circuit of analog low - voltage power amplifier.

It is intended for use as mono (bridge)/stereo audio power amplifier in portable cassette players and radios.

PIN CONNECTIONS



DIP-8, SOP-8 (TOP VIEW)

PIN FUNCTIONS DESCRIPTION

PIN	I/O	NAME
1	OUTPUT	OUTPUT (1)
2		SUPPLY VOLTAGE
3	OUTPUT	OUTPUT (2)
4		GROUND
5	INPUT	INPUT -(2)
6	INPUT	INPUT +(2)
7	INPUT	INPUT -(1)
8	INPUT	INPUT +(1)

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V_S	15	V
Peak Output Current	I_O	1	A
Total Power Dissipation at T_A=50°C	P_{LOT}	1	W
otal Power Dissipation at T_{EASE}=50°C	P_{LOT}	1.4	W
Storage Temperature	T_{STG}	-40	°C
Junction Temperature	T_J	+150	°C

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■ ELECTRICAL CHARACTERISTICS (V_S=6V, T_A=25°C, unless otherwise specified)

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
STEREO						
Supply Voltage	V_S	-	1.8		15	V
Quiscent Output Voltage	V_O	- V_S = 3V		2.7 1.2		V
Quiscent Drain Current	I_D	-		6	9	mA
Input Bias Current	I_B	-		100		nA
Output Power (each channel) f=1kHz, d=10%	P_O	R_L=32Ω, V_S = 9V V_S = 6V V_S = 4.5V V_S = 3V V_S = 2V R_L=16Ω, V_S = 6V R_L=8Ω, V_S = 9V V_S = 6V R_L=4Ω, V_S = 6V V_S = 4.5V V_S = 3V	90 15 170 300 450	300 120 60 20 5 220 1000 380 650 320 110		mW
Distortion (f=1kHz)	d	R_L=32Ω, P_O = 40mW R_L=16Ω, P_O = 75mW R_L=8Ω, P_O = 150mW		0.2 0.2 0.2		%
Closed Loop Voltage Gain	G_V	f=1kHz	36	39	41	dB
Channel Balance	ΔG_V	-			±1	dB
Input Resistance	R_I	f=1kHz	100			kΩ
Total Input Noise	θ_N	R_S=10kΩ, B = Curve A B = 22Hz to 22kHz		2 2.5		μV
Supply Voltage Rejection	SVR	f=100Hz, C1=C2=100 μF	24	30		dB
Channel Separation	C_S	f=1kHz		50		dB
BRIDGE						
Supply Voltage	V_S	-	1.8		15	V
Quiscent Drain Current	I_D	R_L=∞		6	9	mA
Output Offset Voltage (between the outputs)	V_{OS}	R_L=8Ω			±50	mV
Input Bias Current	I_B	-		100		nA
Output Power (each channel) f=1kHz, d=10%	P_O	R_L=32Ω, V_S = 9V V_S = 6V V_S = 4.5V V_S = 3V V_S = 2V R_L=16Ω, V_S = 9V V_S = 6V V_S = 3V R_L=8Ω, V_S = 6V V_S = 4.5V V_S = 3V R_L=4Ω, V_S = 4.5V V_S = 3V V_S = 2V	320 50 900 200	1000 400 200 65 8 2000 800 120 1350 700 220 1000 350 80		mW
Distortion	d	R_L=32Ω, P_O = 0.5W, f=1kHz		0.2		%
Closed Loop Voltage Gain	G_V	f=1kHz		39		dB
Input Resistance	R_I	f=1kHz	100			kΩ
Total Input Noise	θ_N	R_S=10kΩ, B = Curve A B = 22Hz to 22kHz		2.5 3		μV
Supply Voltage Rejection	SVR	f=100Hz		40		dB
Power Bandwith (-3dB)	B	R_L=8Ω, P_O = 1W		120		kHz