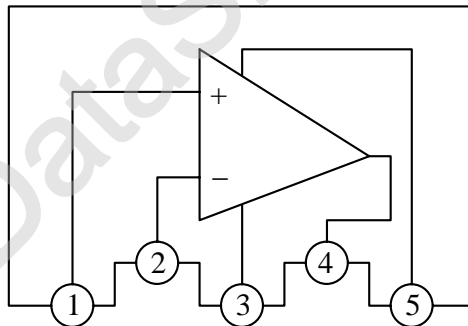


22W HI-FI AUDIO POWER AMPLIFIER——YD1008**DESCRIPTION**

The YD1008 is a monolithic audio power amplifier integrated circuit.

FEATURES

- *High output power
- *High operating supply voltage (50V)
- *Single or split supply operations
- *Very low distortion
- *Short circuit protection (out to end)
- *Thermal shutdown

BLOCK DIAGRAM**WuXi YouDa Electronics Co., Ltd**

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ABSOLUTE MAXIMUM RATINGS (Tamb=25)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V _S	± 25	V
Input Voltage	V _i	V _S	V
Differential Input Voltage	V _i	± 15	V
Output Peak Current (internally limited)	I _O	5	A
Power Dissipation at Tcase=75	P _D	25	W
Storage And Junction Temperature	Tstg, Tj	-40 ~ +150	

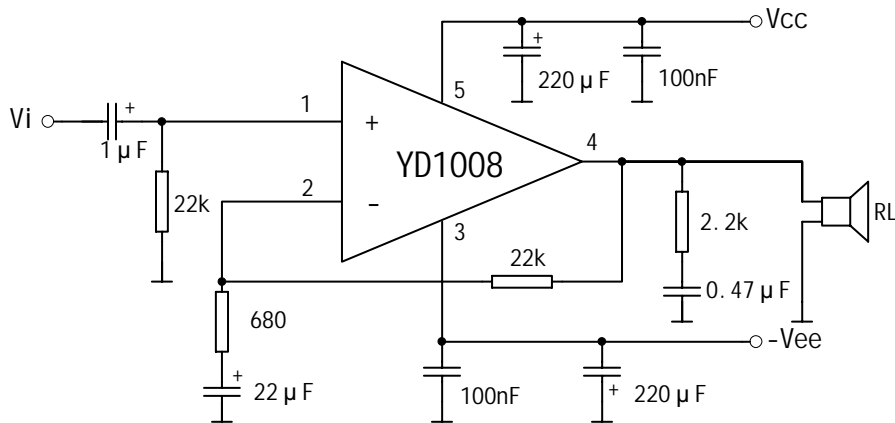
ELECTRICAL CHARACTERISTICS

(V_s = ±18V, Tamb =25 , f = 1 kHz, unless otherwise specified)

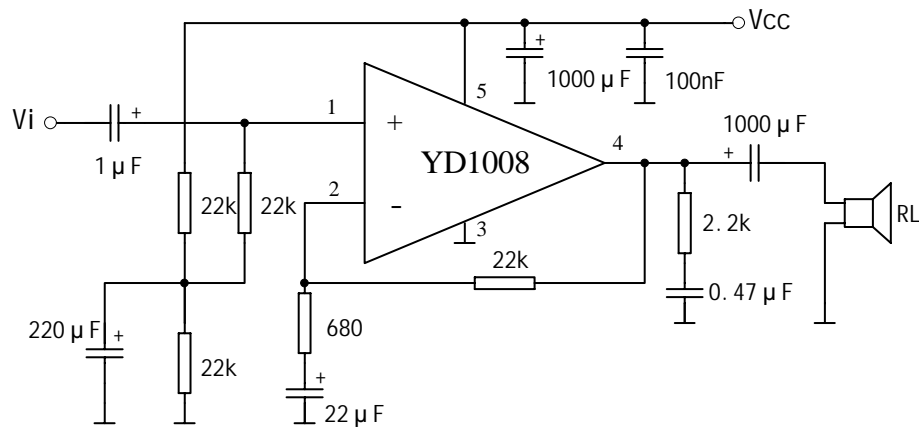
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V _S		± 4.5		± 25	V
Quiescent Drain Current	I _d	V _S = ± 4.5V		30	50	mA
		V _S = ± 25V		55	90	mA
Input Bias Current	I _b	V _S = ± 22V		0.1	0.5	μ A
Input Offset Voltage	V _{is}				± 15	mV
Input Offset Current	I _{is}				± 200	nA
RMS Output Power	P _o	THD = 1% , R _L = 8	16	18		W
		THD = 10% , R _L = 8	20	22		W
Total Harmonic Distortion	THD	f = 40Hz to 15kHz, R _L = 8 P _o = 0.1 to 10W		0.02	0.5	%
SR Slew Rate	SR		5	8		V/ μ s
Open Loop Voltage Gain	G _v			80		dB
Closed Loop Voltage Gain	G _v		30	30.5	31	dB
Power Bandwidth (-3dB)	BW	R _L = 8 , V _i = 200mV	20 to 80,000			Hz
Total Input Noise	e _N	B = 22Hz to 22kHz		5	10	μ V
Input Resistance (pin 1)	R _i		500	5000		k
Supply Voltage Rejection	SVR	R _s = 22k , f = 100Hz V _{ripple} = 0.5V		45		dB
Efficiency		P _O = 20W, R _L = 8 ; V _S = ± 22V		65		%
Thermal Shut-Down Junction Temperature	Tsd- j			150		

APPLICATION CIRCUIT

(1) YD1008 DUAL SUPPLY POWER APPLICATION



(2) YD1008 SINGLE SUPPLY POWER APPLICATION



OUTLINE DRAWING

