

0.8W Mono Class AB Audio Amplifier

General Description: CM4890 is an audio amplifier of class AB, when connected to a 4.5V , THD+N less than 10%, will deliver 0.8W to 4Ω load or 0.5W to a 8Ω load . The CM4890 is unity-gain stable and can be configured by external gain-setting resistors, It features a low-power consumption shutdown mode with very low shutdown current, and thermal shutdown protection. It also utilizes circuitry to reduce “clicks and pops” during device turn-on and turn-off.

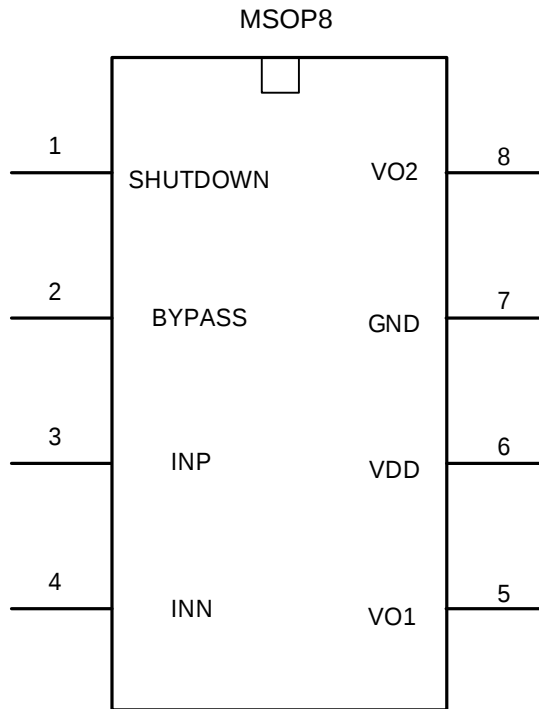
Features:

1. Power output at 4.2V , 4Ω load, THD+N<10%, is 0.8W
2. Power out ut at 4.2V , 8Ω load, THD+N<10%, is 0.5W.
3. Operating supply voltage: VDD =2.7V~4.5V。
4. Typical shutdown current: 0.8uA。
5. Improved pop & click circuitry eliminates noise during turn-on and turn-off transitions
6. MSOP8 packages.

Electrical Characteristics:

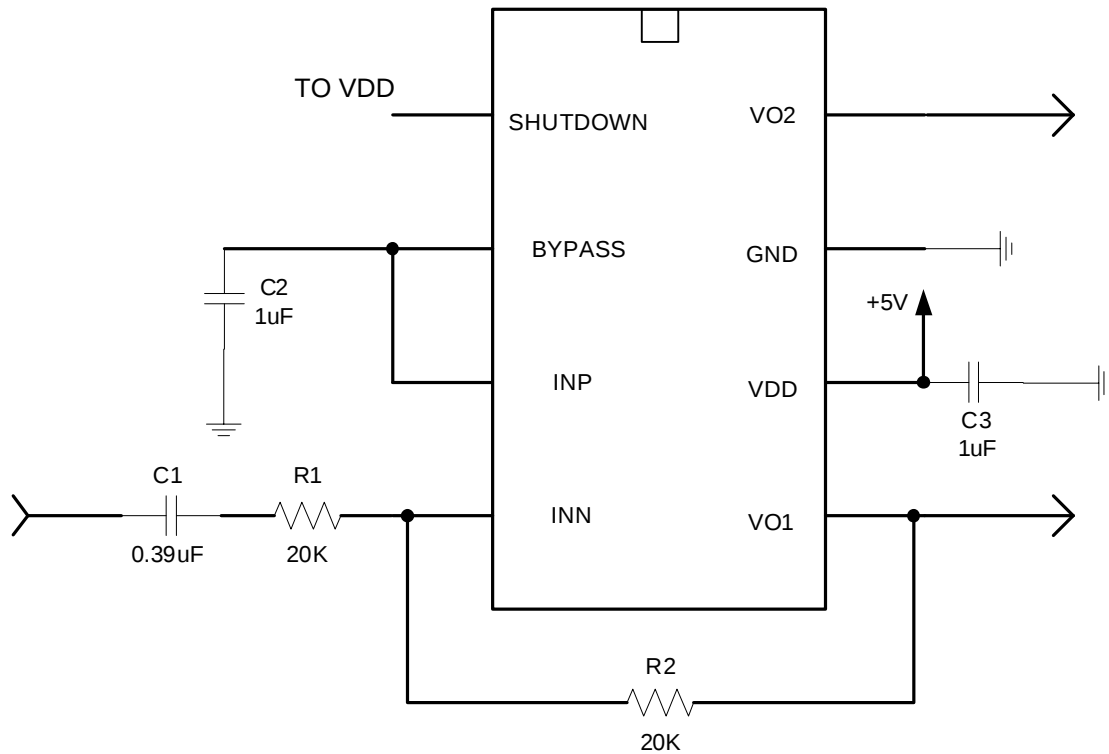
Symbol	Parameter	Conditions	Typical	Limit	Units
I _{DD}	Quiescent power supply current	V _{IN} =0V, I _O =0A, No Load	2.5	15	mA
I _{SD}	Shutdown current	V _{SD} = V _{DD}	0.2	4.0	μA
V _{SDIH}	Shutdown voltage input high	V _{DD} =4.2V	2.5		V
V _{SDIL}	Shutdown voltage input low	V _{DD} =4.2 V	2.0		V
V _{OS}	Output offset voltage	V _{IN} =0V, No Load	30	50	mV
P _O	Output power (8 Ω load)	THD+N=10%(max); f=1kHz	0.5		W
	Output power (4 Ω load)		0.8		
T _{WU}	Wake-up time		100		ms
THD+N	Total harmonic distortion + noise	P _O =0.5Wrms; f=1kHz	0.1	1.0	%
PSRR	Power supply rejection ratio	V _{ripple} =200mV	-63 (217Hz) -77 (1kHz)	-55	dB

Packaging information:



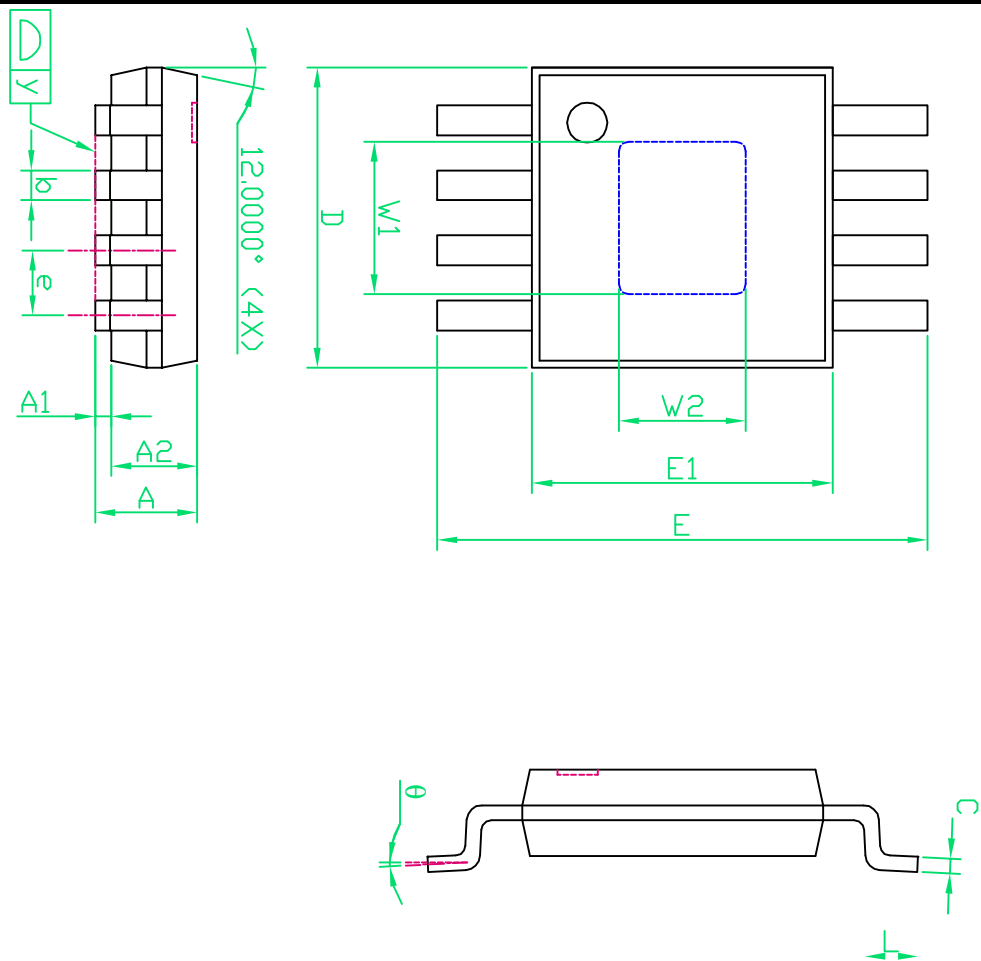
Typical application:

The CM4890 is unity-gain stable and can be configured by external gain-setting resistors. It features a low-power consumption shutdown mode with very low shutdown current, and



增益放大可以改变 R2 的阻值到 100K

CM4890/LM4890



SYMBOLS	DIMENSIONS IN MILLIMETERS			DIMENSIONS IN INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.81	0.92	1.07	0.032	0.036	0.042
A1	0.00	—	0.10	0.000	—	0.004
A2	0.76	0.86	0.97	0.030	0.034	0.038
b	0.28	0.30	0.38	0.011	0.012	0.015
C	0.13	0.15	0.23	0.005	0.006	0.009
D	2.90	3.00	3.10	0.114	0.118	0.122
E	4.70	4.90	5.10	0.185	0.193	0.201
E1	2.90	3.00	3.10	0.114	0.118	0.122
e	0.60	0.65	0.70	0.024	0.026	0.028
L	0.40	0.53	0.66	0.016	0.021	0.026
y	—	—	0.10	—	—	0.004
θ	0°	—	6°	0°	—	6°
W1	1.27	—	1.52	0.050	—	0.060
W2	1.02	—	1.27	0.040	—	0.050