

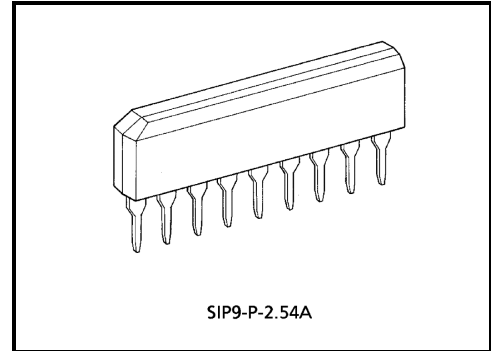
TA8125S

Dual Pre-Amplifier

The TA8125S is dual output preamplifier designed for car or home use.

Features

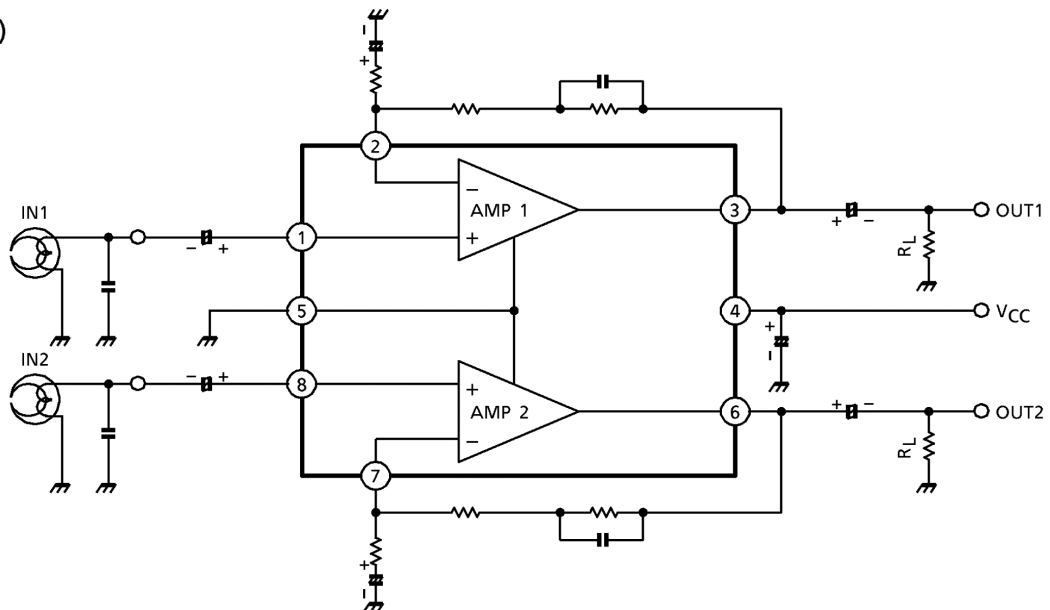
- High open loop voltage gain
: $G_{VO} = 100\text{dB}$ (typ.) at $f = 1\text{kHz}$
- Excellent channel separation and high ripple rejection
: $CH_{sep} = 65\text{dB}$ (typ.)
($f = 10\text{kHz}$, $R_g = 2.2\text{k}\Omega$, $V_{OUT} = 0.775V_{rms}$ (0dBm))
: R.R. = 50dB (typ.)
($f_{ripple} = 100\text{Hz}$, $R_g = 2.2\text{k}\Omega$, $V_{OUT} = 0.775V_{rms}$ (0dBm))
- Low noise
: $V_{NI} = 1.0\mu V_{rms}$ (typ.) at $R_g = 2.2\text{k}\Omega$, $BW = 20\text{Hz} \sim 20\text{kHz}$, NAB EQ
- Wide operating supply voltage range: $V_{CC} (opr.) = 6 \sim 16\text{V}$ ($T_a = 25^\circ\text{C}$)



Weight: 0.92g (typ.)

Block Diagram

(NAB EQ)



Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Supply voltage	V _{CC}	16	V
Power dissipation (Note)	P _D	700	mW
Operating temperature	T _{opr}	-30~80	°C
Storage temperature	T _{stg}	-55~150	°C

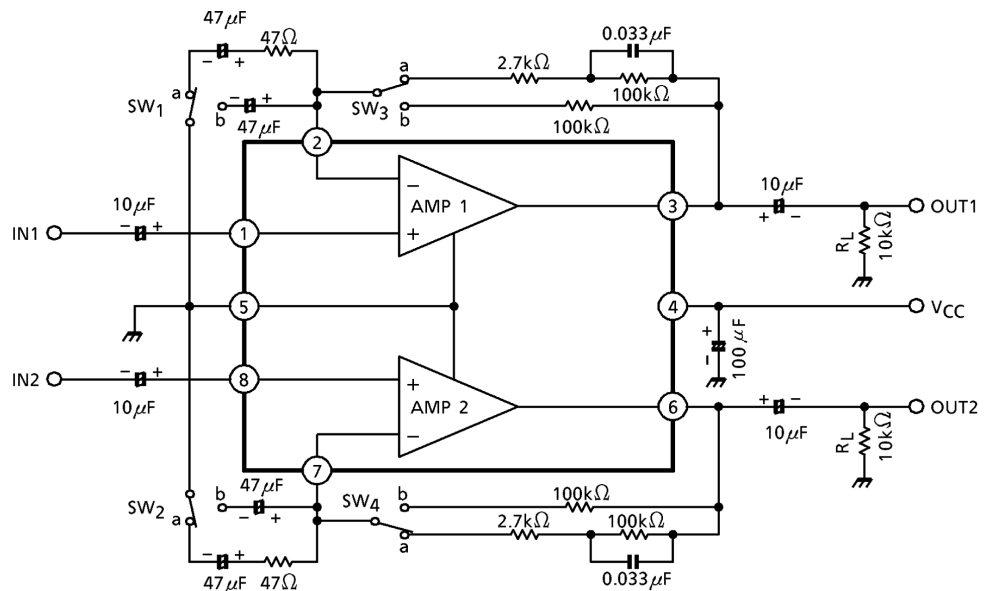
(Note) Derated above Ta = 25°C in the proportion of 5.6mW / °C.

Electrical Characteristics

(unless otherwise specified, V_{CC} = 6V, f = 1kHz, R_g = 600Ω, R_L = 10kΩ, Ta = 25°C)

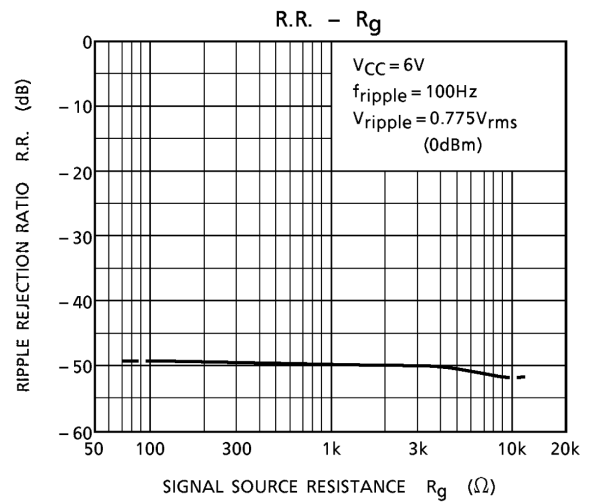
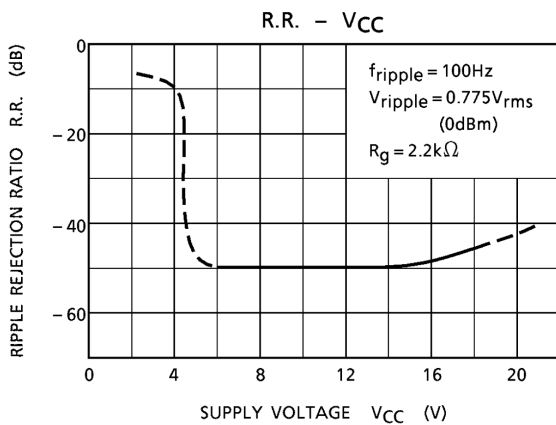
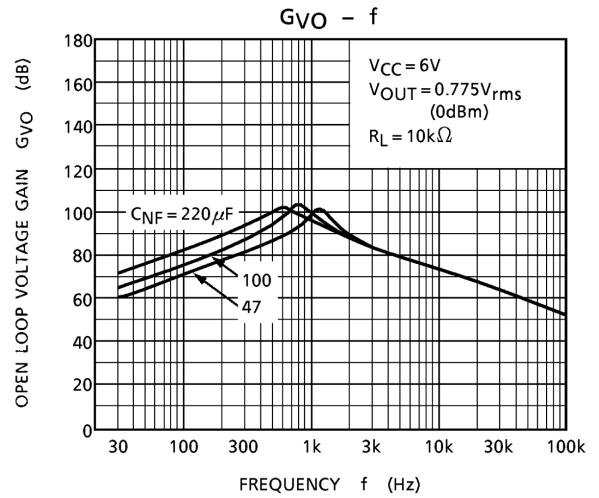
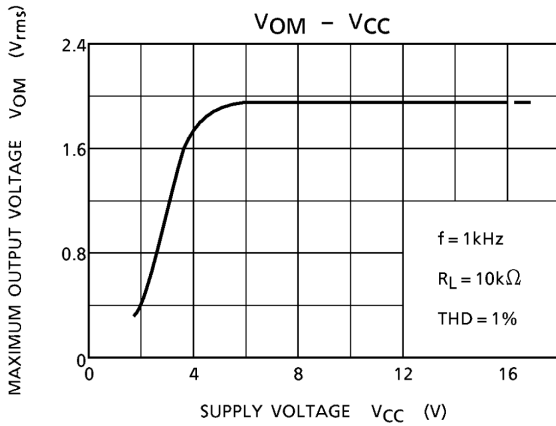
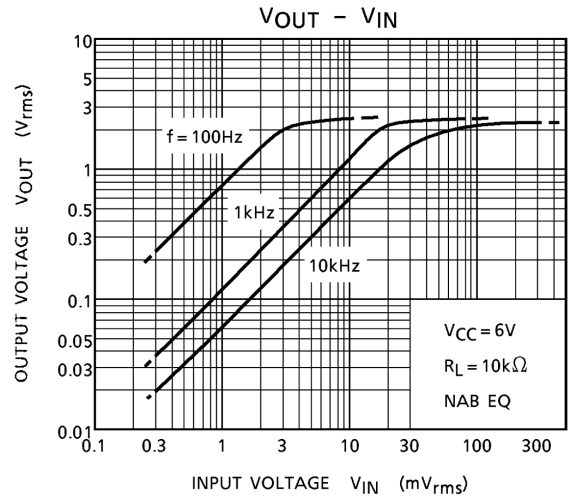
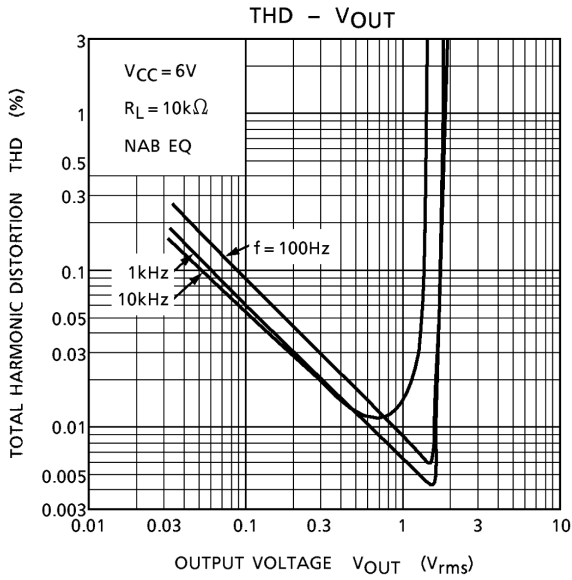
Characteristic	Symbol	Test Circuit	Test Condition	Min.	Typ.	Max.	Unit
Quiescent current	I _{CCQ}	—	V _{IN} = 0	—	3	6	mA
Voltage gain	G _{VO}	—	V _{OUT} = 7.75μV _{rms} (-100dBm)	75	100	—	dB
	G _V	—	V _{OUT} = 0.775V _{rms} (0dBm)	38.5	41.5	44.5	
Maximum output voltage	V _{OM}	—	THD = 1%	1.0	1.8	—	V
Equivalent input noise voltage	V _{NI}	—	R _g = 2.2kΩ, B.W = 20Hz~20kHz	—	1.0	1.7	μV _{rms}
Input resistance	R _{IN}	—	—	50	150	—	kΩ
Total harmonic distortion	THD	—	V _{OUT} = 0.775V _{rms} (0dBm)	—	0.04	0.25	%
Channel separation	CH _{sep}	—	f = 10kHz, V _{OUT} = 0.775V _{rms} (0dBm)	—	65	—	dB
Ripple rejection ratio	R.R.	—	f = 100Hz, R _g = 2.2kΩ	—	50	—	dB

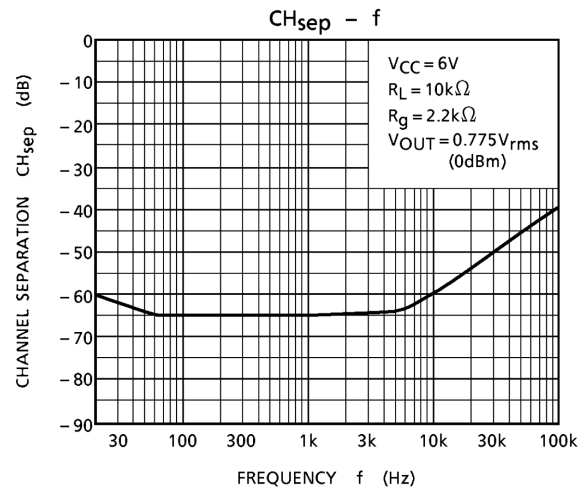
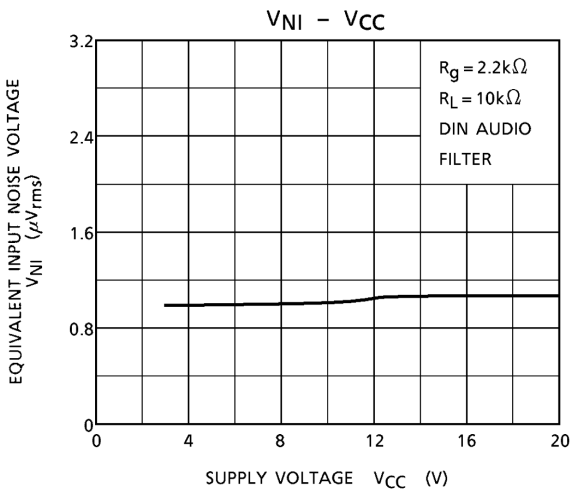
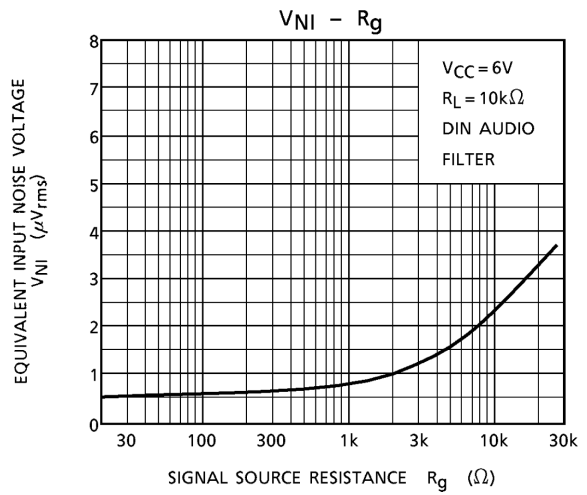
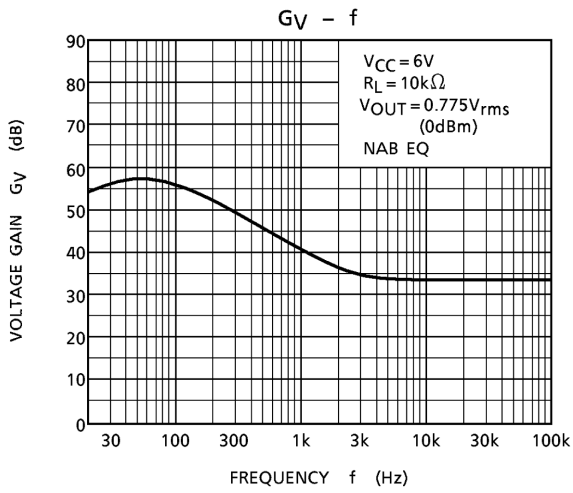
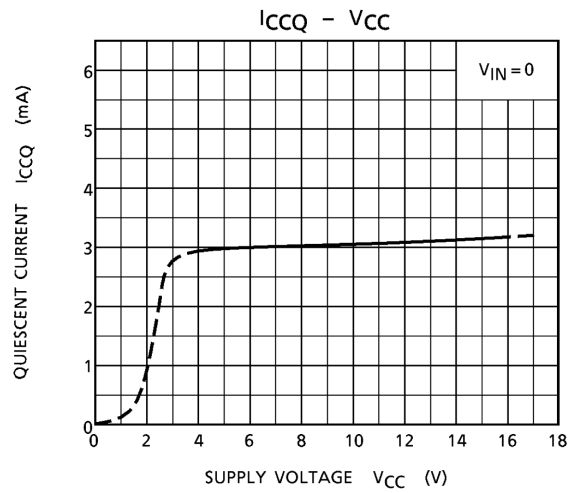
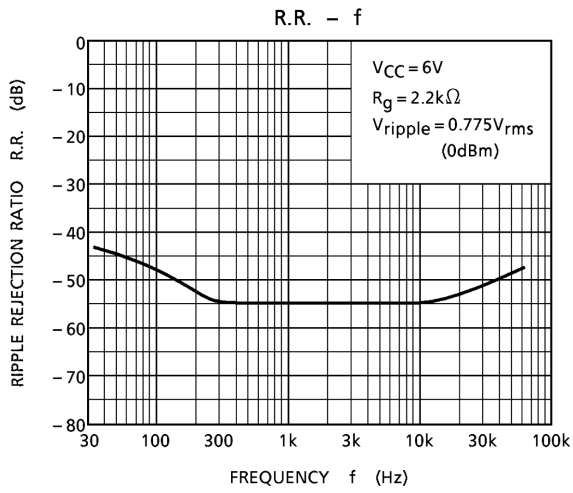
Test Circuit ((9)pin open or GND)

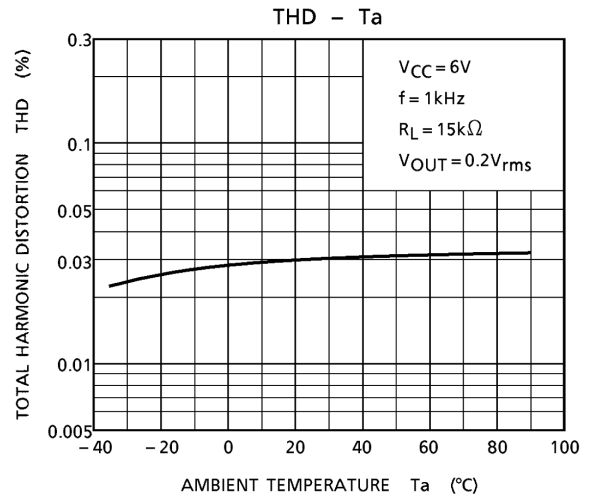
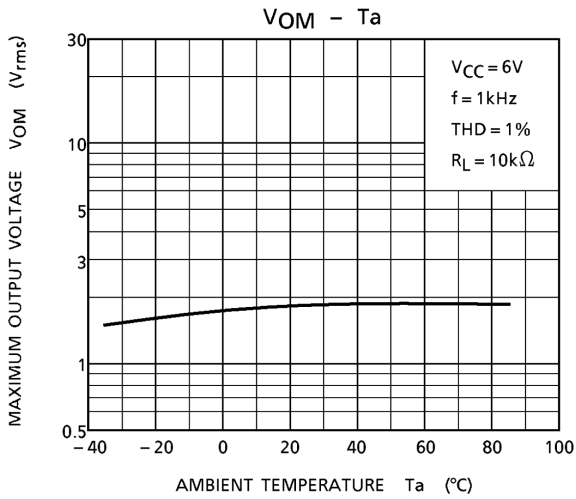
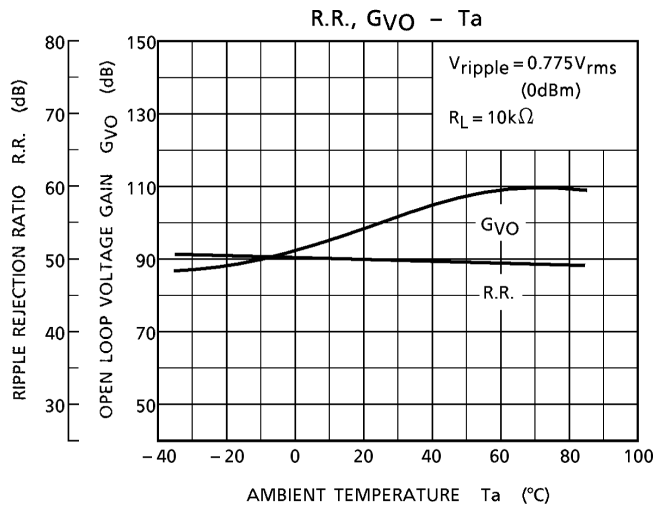
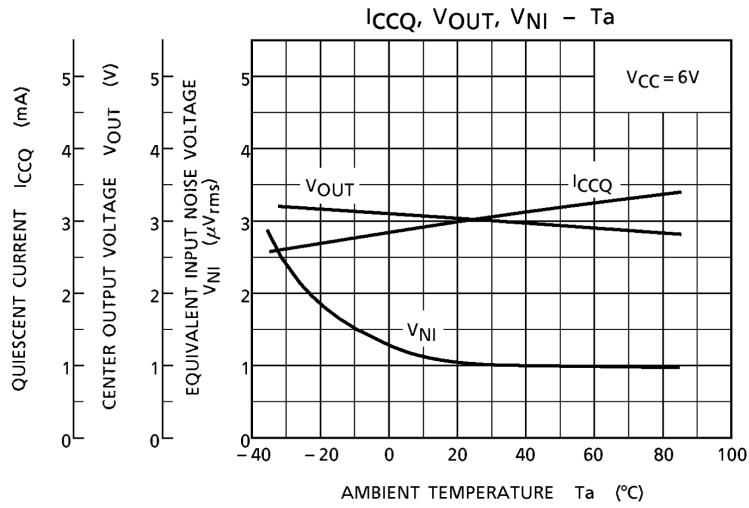


PIN⑨ : NC

(*) G_{VO} : SW₁~SW₄→b SIDE

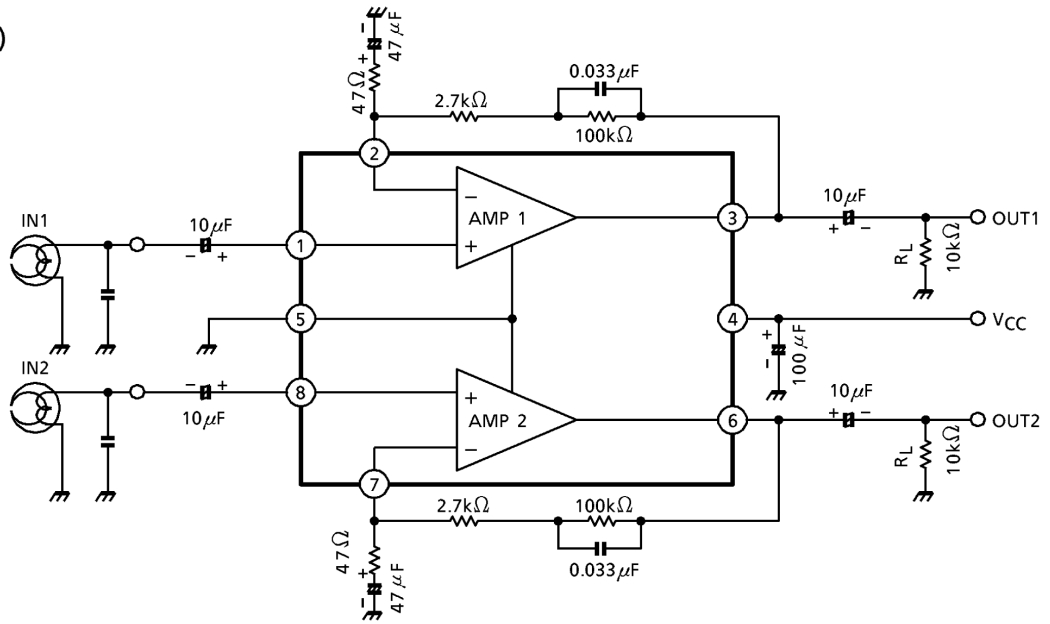






Application Circuit

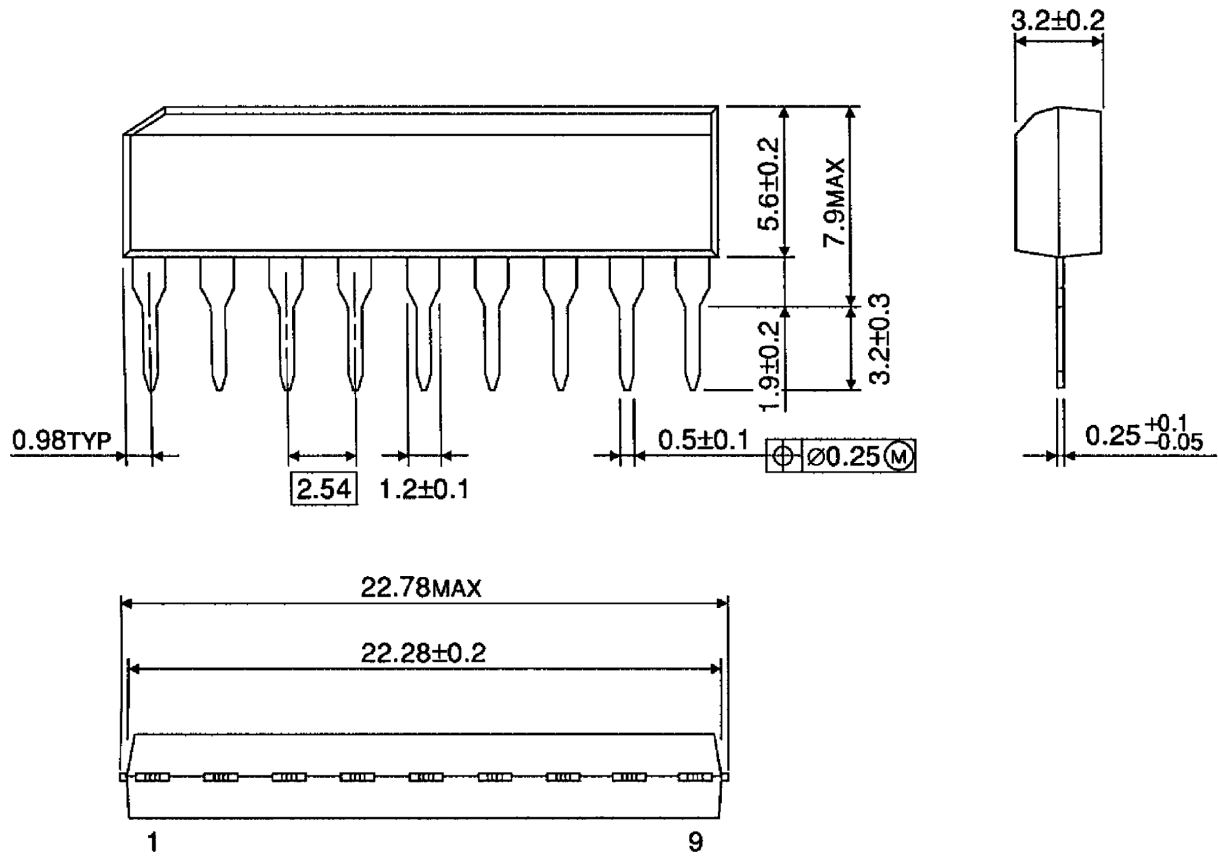
(NAB EQ)



Package Dimensions

SIP9-P-2.54A

Unit : mm



Weight: 0.92g (typ.)

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