

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

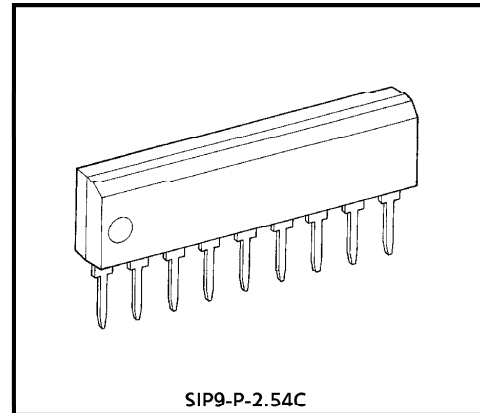
TA8193S

DUAL LINE OUTPUT AMPLIFIER

The TA8193S is dual Line Output Amplifier designed for audio use.

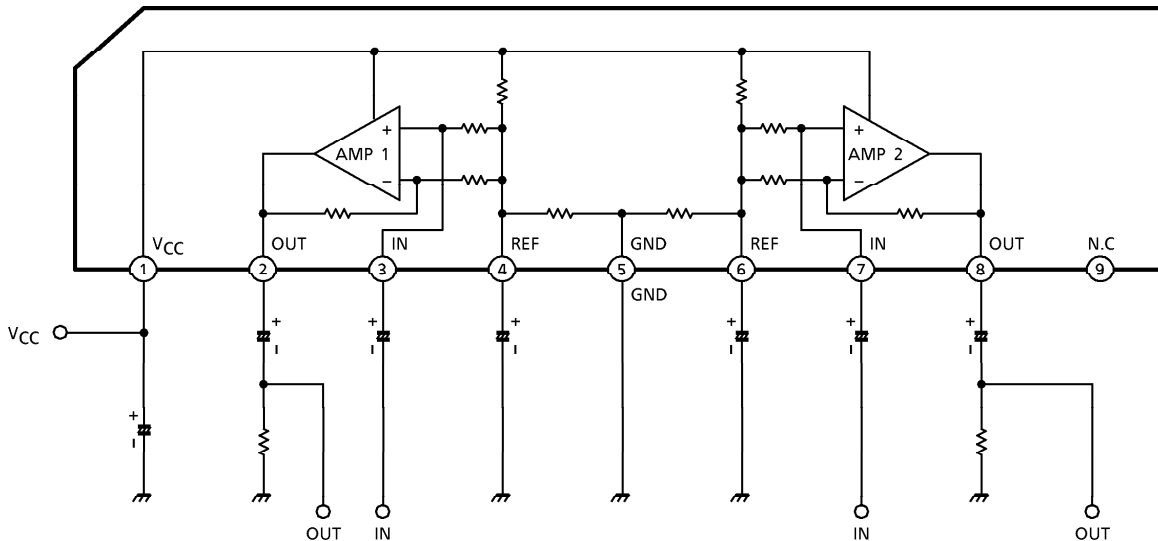
FEATURES

- Suitable for Line Output Amplifier
- Built-in Feedback Resistor
- Few External Parts
- Fixed Voltage Gain : $G_V = 20\text{dB (Typ.)}$
- Low Noise : $V_{NO} = 30\mu\text{V}_{\text{rms}} \text{ (Typ.)}$
($R_g = 10\text{k}\Omega$, DIN AUDIO)
- Small Package : Slim SIP 9pin
- Operating Supply Voltage Range : $V_{CC(\text{opr.})} = 5\sim 16\text{V}$ ($T_a = 25^\circ\text{C}$)



Weight : 0.65g (Typ.)

BLOCK DIAGRAM



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MAXIMUM RATINGS (Ta = 25°C)

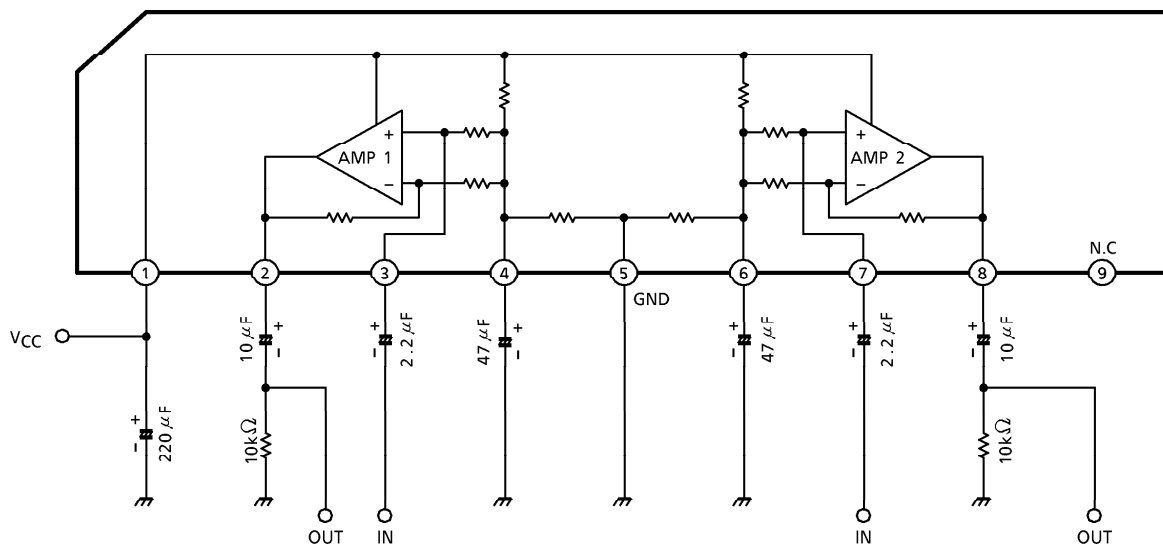
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	18	V
Power Dissipation	P _D (Note)	500	mW
Operating Temperature	T _{opr}	- 30~85	°C
Storage Temperature	T _{stg}	- 55~150	°C

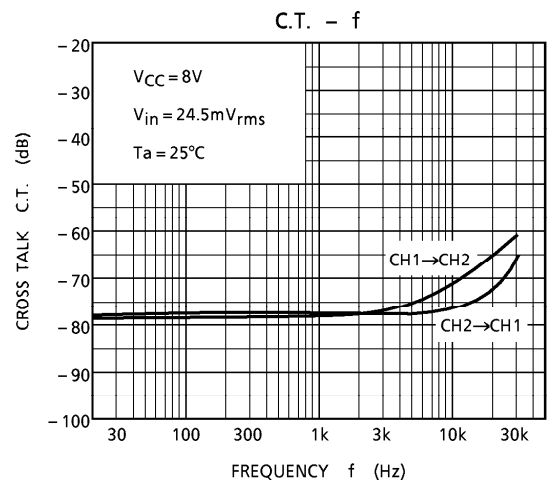
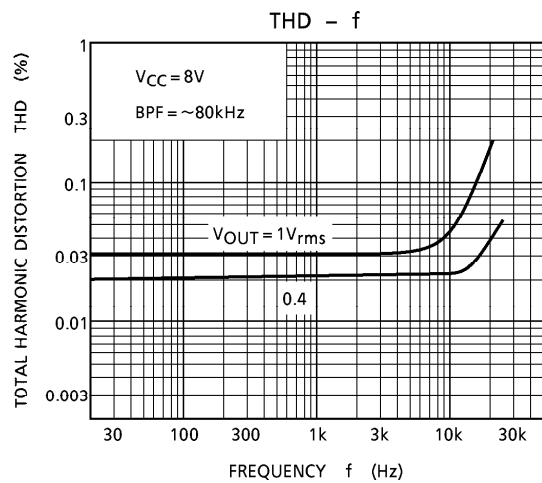
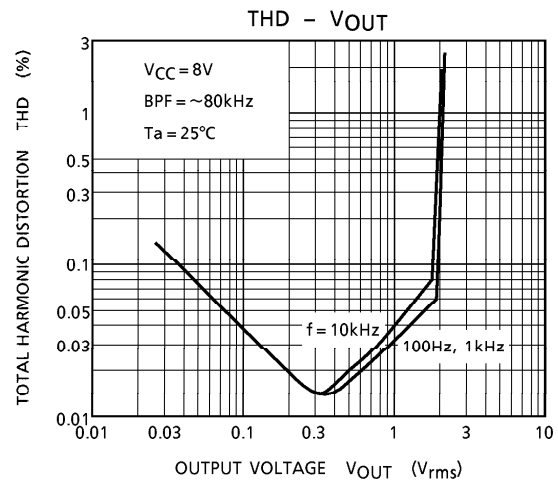
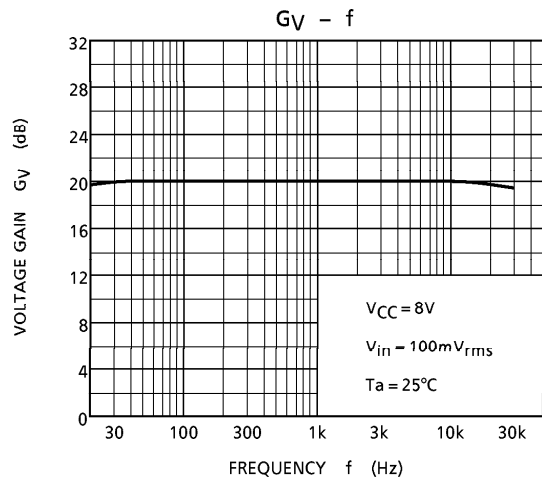
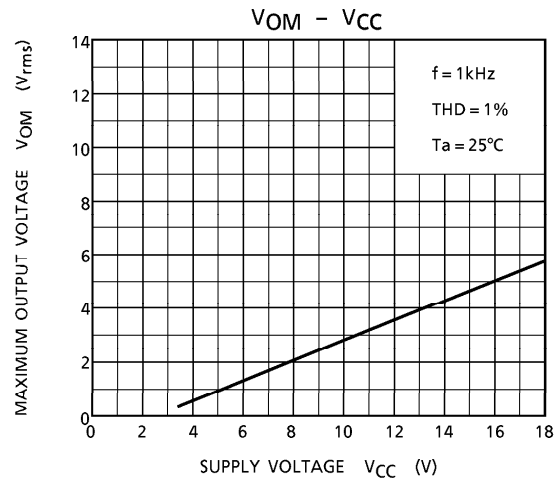
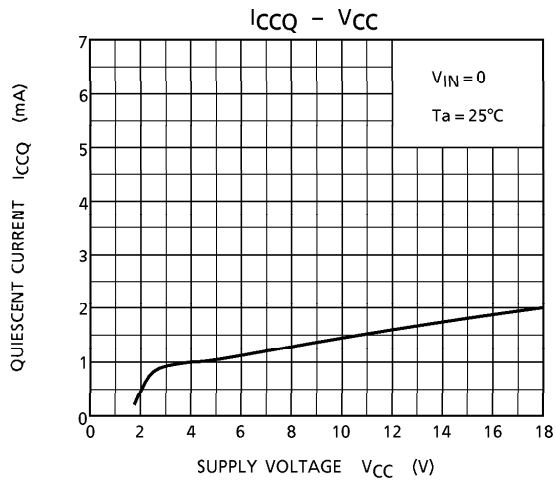
(Note) Derated above Ta = 25°C in the proportion of 4mW/°C.

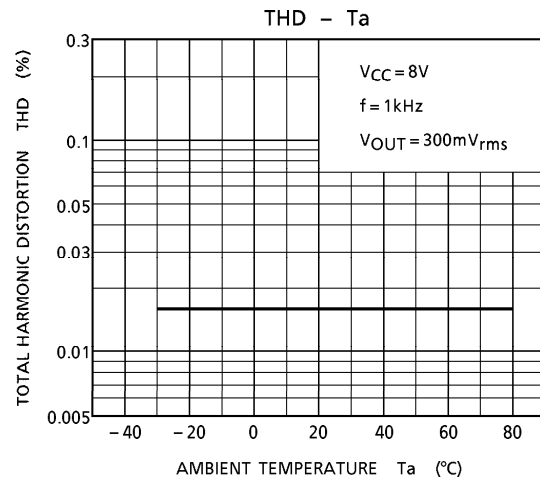
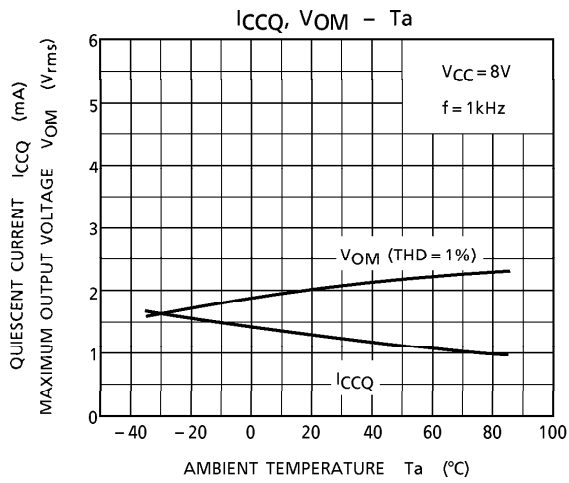
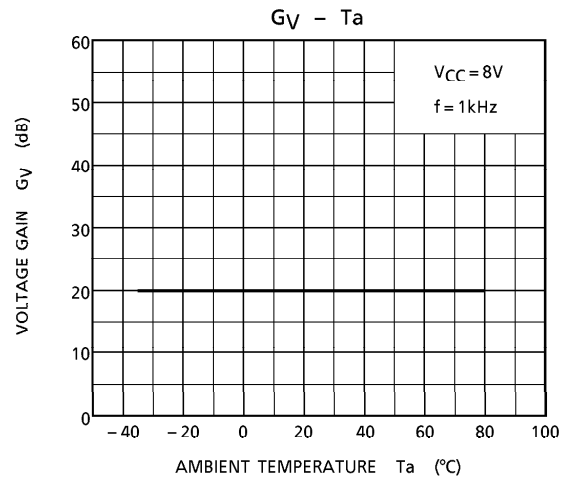
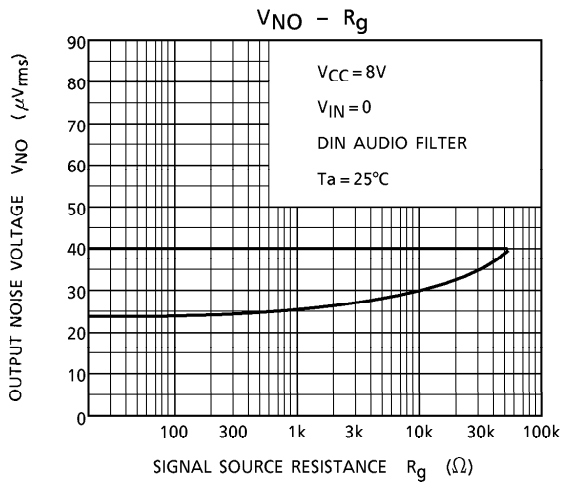
ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{CC} = 8V, f = 1kHz, R_L = 10kΩ, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I _{CCQ}	—	V _{IN} = 0	—	1.5	2.5	mA
Maximum Output Voltage	V _{OM}	—	THD = 1%	1.4	2.0	—	V _{rms}
Closed Loop Voltage Gain	G _V	—	—	18.5	20	21.5	dB
Total Harmonic Distortion	THD	—	V _{OUT} = 300mV _{rms}	—	0.02	0.3	%
Output Noise Voltage	V _{NO}	—	R _g = 10kΩ, BPF = 20~20kHz	—	30	60	μV _{rms}
Cross Talk	C.T	—	R _g = 10kΩ	—	- 75	—	dB

TEST CIRCUIT

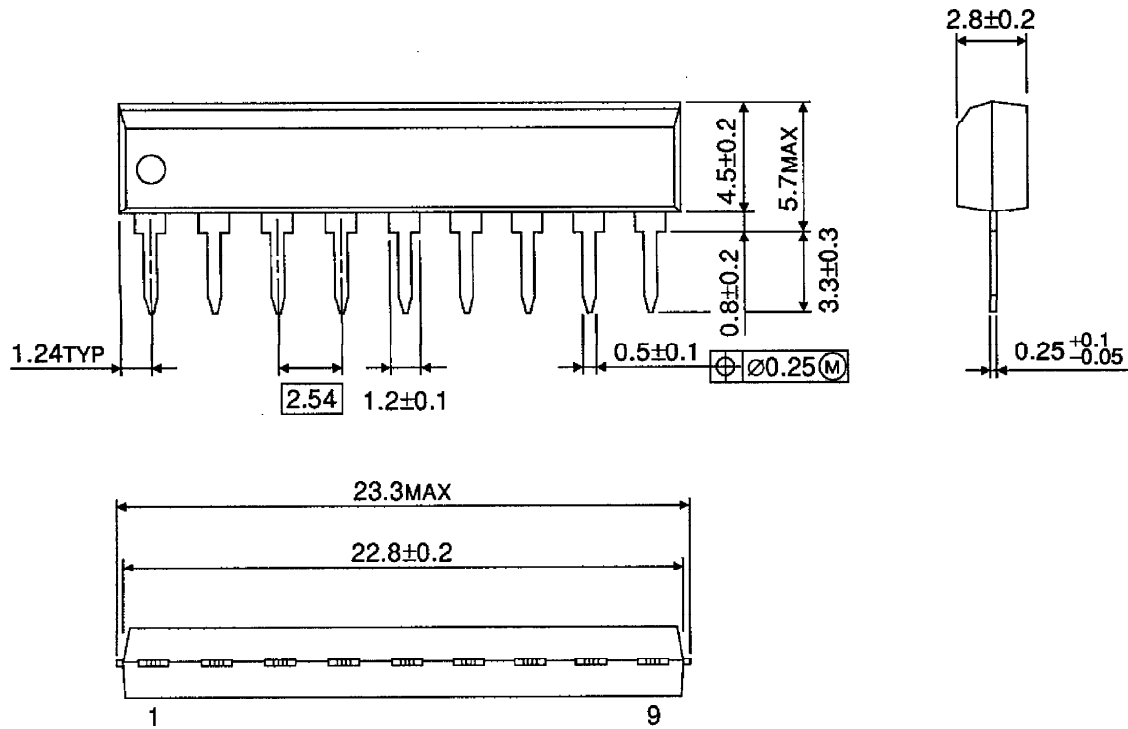






OUTLINE DRAWING
SIP9-P-2.54C

Unit : mm



Weight : 0.65g (Typ.)