

LOW NOISE DUAL PRE-AMPLIFIER

The KIA6259P and KIA6259S are dual low noise pre-amplifier improved on operational amplifier(4558type) for consumer applications.

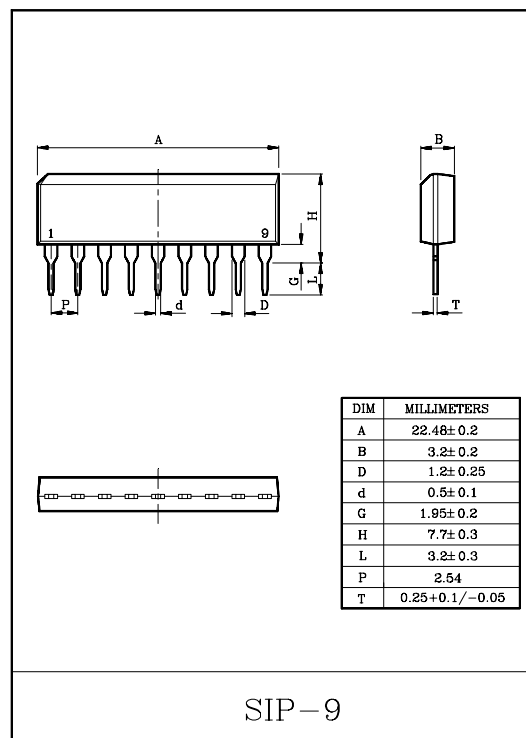
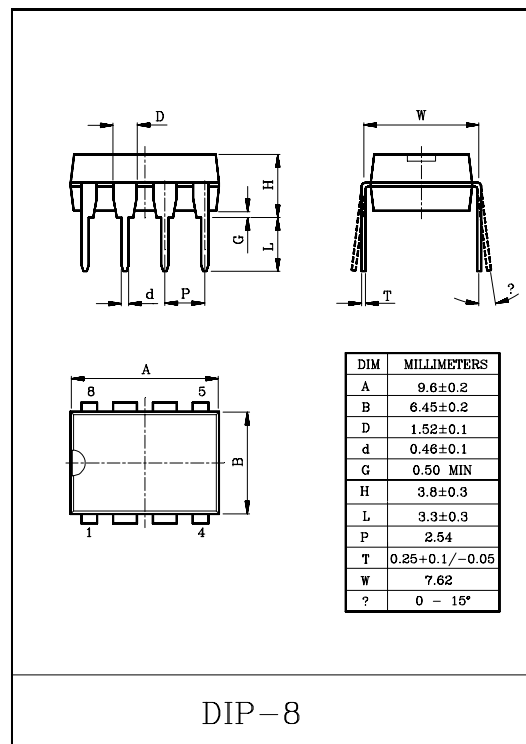
FEATURES

- Wide operating supply voltage range
: $V_{CC}, V_{EE} \pm 1.5V \sim \pm 18.0V$
- Low Noise, Low Distortion
: $V_{NI} = 1\mu V_{rms}$ (Typ.)
($R_g = 2.2k\Omega$, NAB, $f = 1kHz$, $G_v = 40dB$)
: THD=0.005%, ($V_{OUT} = 2.0V_{rms}$)
- The recommended closed loop voltage gain in more than 20dB.

MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Supply Voltage		V_{CC}	± 22	V
Power Dissipation (Note)	KIA6259P	P_D	500	mW
	KIA6259S		750	
Operating Temperature		T_{opr}	$-25 \sim 75$	$^\circ C$
Storage Temperature		T_{stg}	$-55 \sim 150$	$^\circ C$

Note : Derated about $T_a = 25^\circ C$ in the proportion of $4mW/^\circ C$ for KIA6259P, and of $6mW/^\circ C$ for KIA6259S



KIA6259P/S

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, $V_{CC}=4.5V$, $V_{EE}=-4.5V$, $f=1kHz$, $T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}	1	$V_{IN}=0$	–	2.7	4.0	mA
Equivalent Input Noise Voltage	V_{NI}	1	$R_g=2.2k\Omega$, NAB, $G_v=40dB$ $BW=20Hz \sim 20kHz$	–	1.0	1.3	μV_{rms}
Open Loop Voltage Gain	G_{VO}	1	$V_{OUT}=2.0V_{rms}$	75	85	–	dB
Total Harmonic distortion	THD	1	$V_{OUT}=2.0V_{rms}$	–	0.005	0.01	%
Maximum Output Voltage	V_{OM}	1	THD=0.5%	2.0	2.7	–	V_{rms}
Cross Talk	C.T.	1	$R_g=2.2k\Omega$, $V_{OUT}=2.0V_{rms}$	65	76	–	dB
Input Bias Current	I_{IB}	1	–	–	0.65	–	μA

DC CHARACTERISTICS

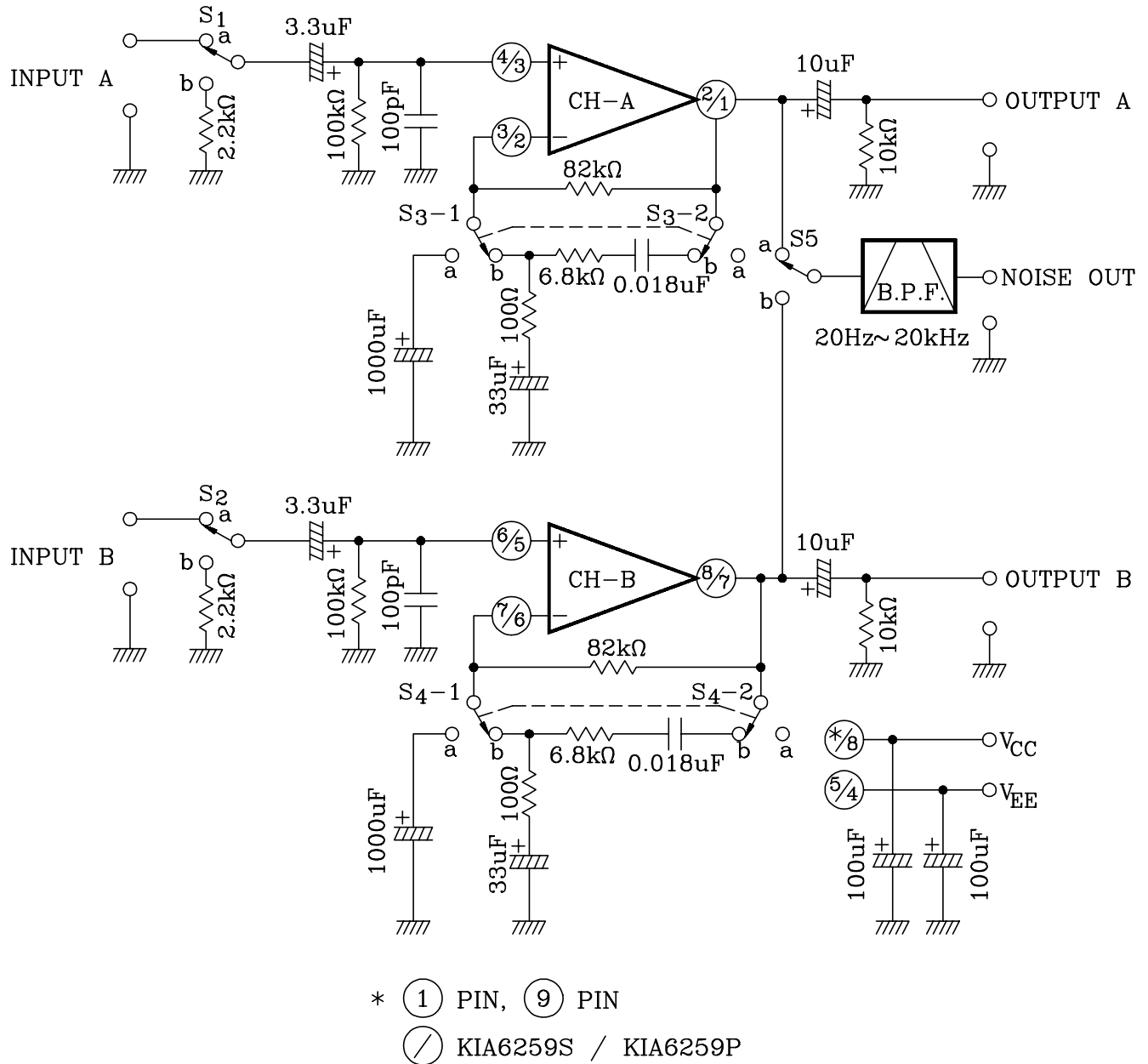
($V_{CC}=4.5V$, $V_{EE}=-4.5V$, $R_g=2.2k\Omega$, Terminal Voltage at No Signal)

(Unit in mV)

TERMINAL NO. TYPE	1	2	3	4	5	6	7	8	9
KIA6259S	V_{CC}	15	75	75	V_{EE}	75	75	15	V_{CC}
KIA6259P	15	75	75	V_{EE}	75	75	15	V_{CC}	–

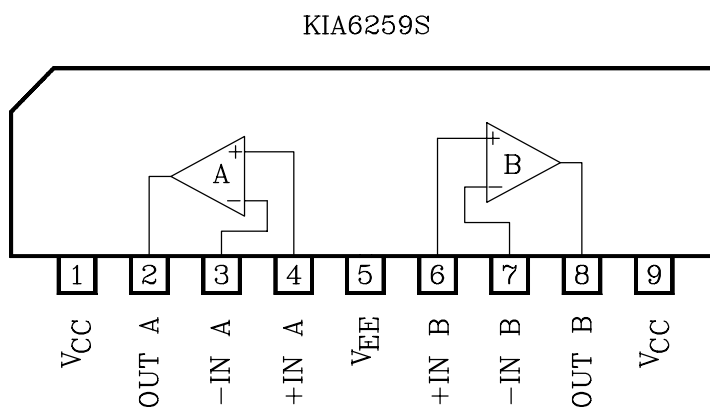
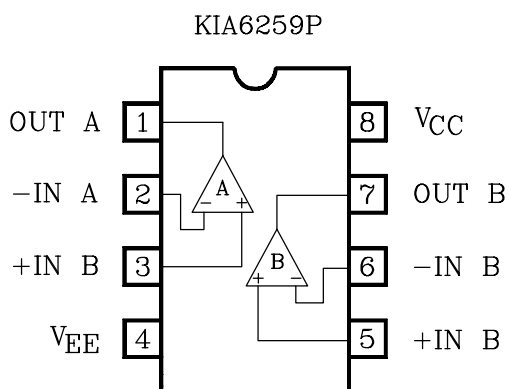
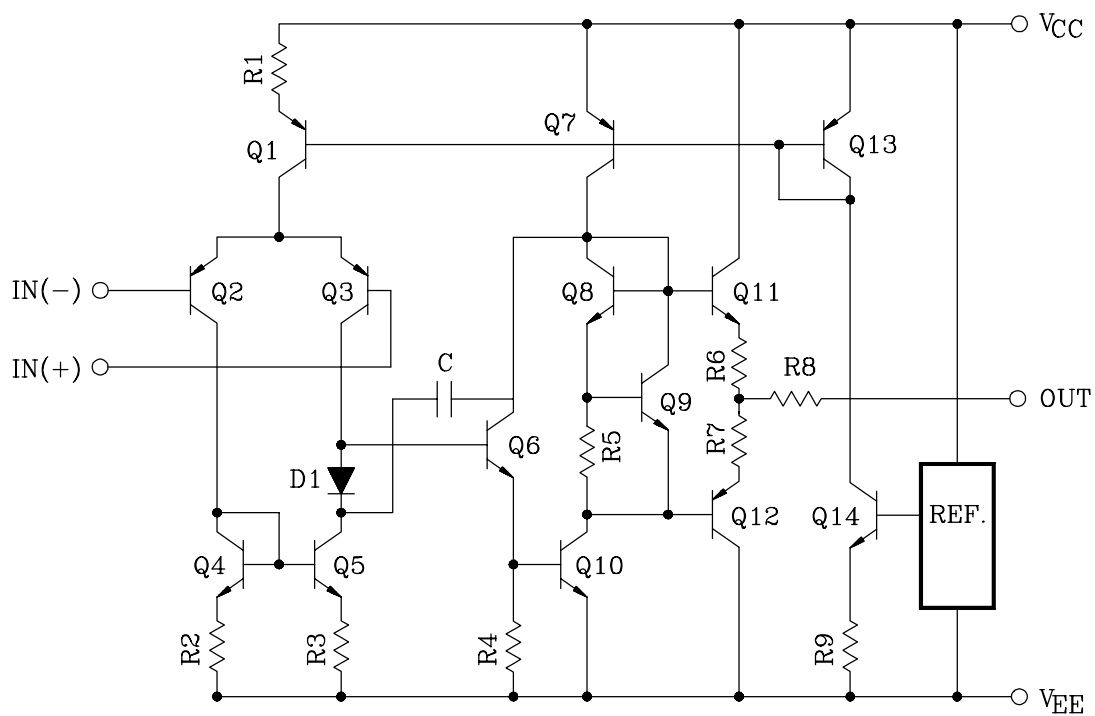
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TEST CIRCUIT

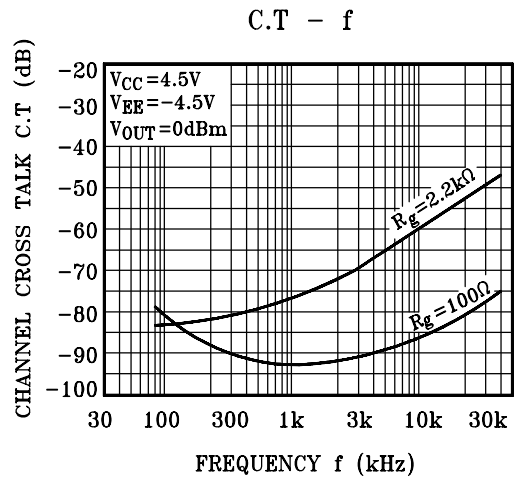
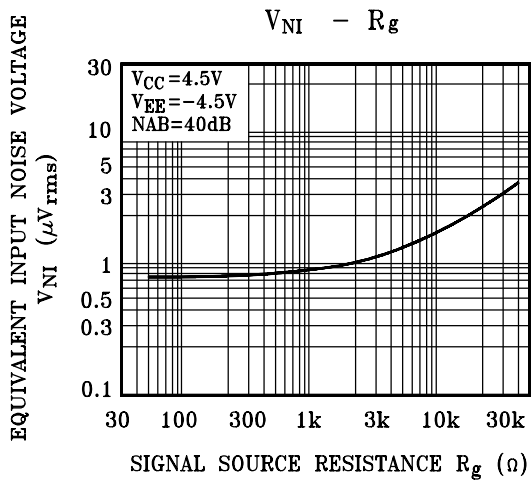
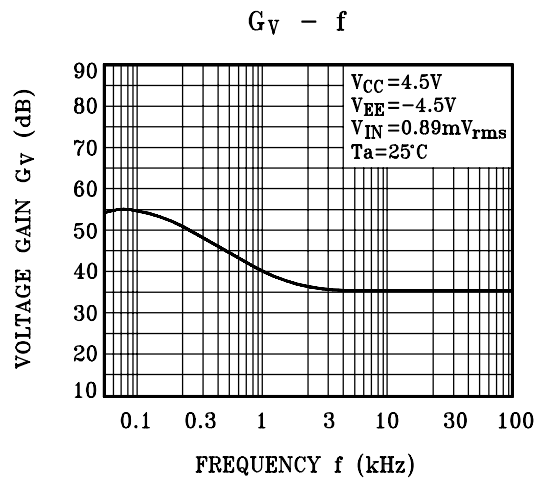
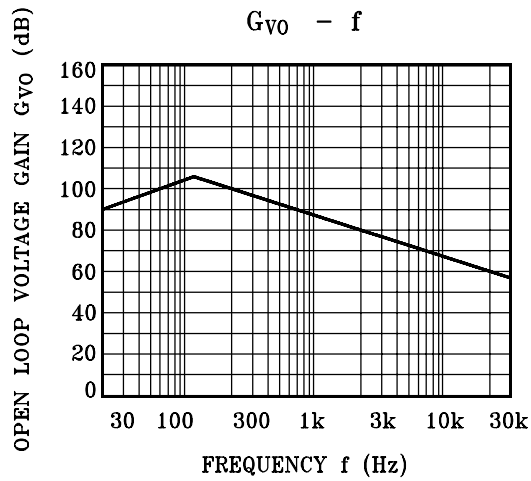


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EQUIVALENT CIRCUIT



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APPLICATION CIRCUITS

