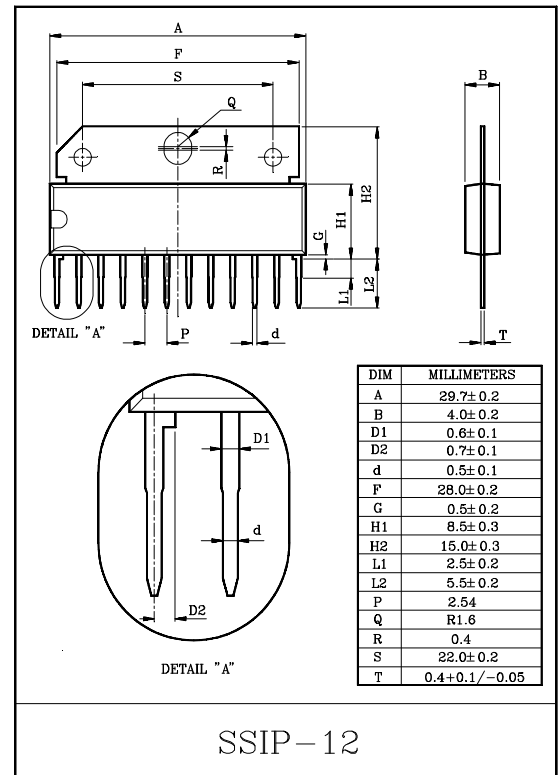


4.6W DUAL AUDIO POWER AMPLIFIER

KIA6282K is an audio power IC with built-in two channels developed for portable radio cassette tape recorder with power ON/OFF switch. Because of the parts reduction and SIP(Single Inline Package), space merit is remarkable. Thermal shut down protection circuit is built in.

FEATURES

- High Power.
 $P_{OUT}=2.5W/CH$ (Typ.)
 $: (V_{CC}=9V, R_L=4\Omega, f=1kHz, THD=10\%)$
 $P_{OUT}=4.6W/CH$
 $: (V_{CC}=12V, R_L=4\Omega, f=1kHz, THD=10\%)$
- Low popping noise at power ON.
- Small Quiescent Current.
 $: I_{CCQ}=19mA$ (Typ.) ($V_{CC}=9V, V_{IN}=0$)
- Soft Clip.
- Built-in thermal shut down protection circuit.
- Best for supply voltage 9V, 12V.
- Operation supply voltage range : $V_{CC}=6\sim 15V$.



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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	20	V
Output Current (Peak/CH)	$I_{O(peak)}$	2.5	A
Power Dissipation	P_D	12.5	W
Operating Temperature	T_{opr}	-20~75	°C
Storage Temperature	T_{stg}	-55~150	°C

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ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, $V_{CC}=9V$, $f=1kHz$, $R_g=600\Omega$, $R_L=4\Omega$, $T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current	I_{CCQ}	—	$V_{IN}=0$	—	19	45	mA
Output Power	$P_{OUT(1)}$	—	THD=10%	2.0	2.5	—	W
	$P_{OUT(2)}$	—	THD=10%, $V_{CC}=12V$	—	4.6	—	
Total Harmonic Distortion	THD	—	$P_{OUT}=1W/CH$	—	0.25	1.0	%
Voltage Gain	$G_V(1)$	—	$R_f=82\Omega$, $V_{OUT}=0dBm$	43	45	47	dB
	$G_V(2)$	—	$R_f=0$, $V_{OUT}=0dBm$	—	56	—	
Input Resistance	R_{IN}	—	—	—	30	—	$k\Omega$
Output Noise voltage	V_{NO}	—	$R_g=10k\Omega$, $BW=20Hz \sim 20kHz$	—	0.3	1.0	mV_{rms}
Ripple Rejection Ratio	R.R	—	$R_g=600\Omega$, $V_{RIP}=0.2V_{rms}$ $f_{RIP}=100Hz$	—	54	—	dB
Cross Talk	C.T	—	$R_g=600\Omega$, Amp 1↔2 $V_{OUT}=0dBm$, $f=1kHz$	—	45	—	dB
Input Offset Voltage	V_6, V_7	—	—	—	20	60	mV

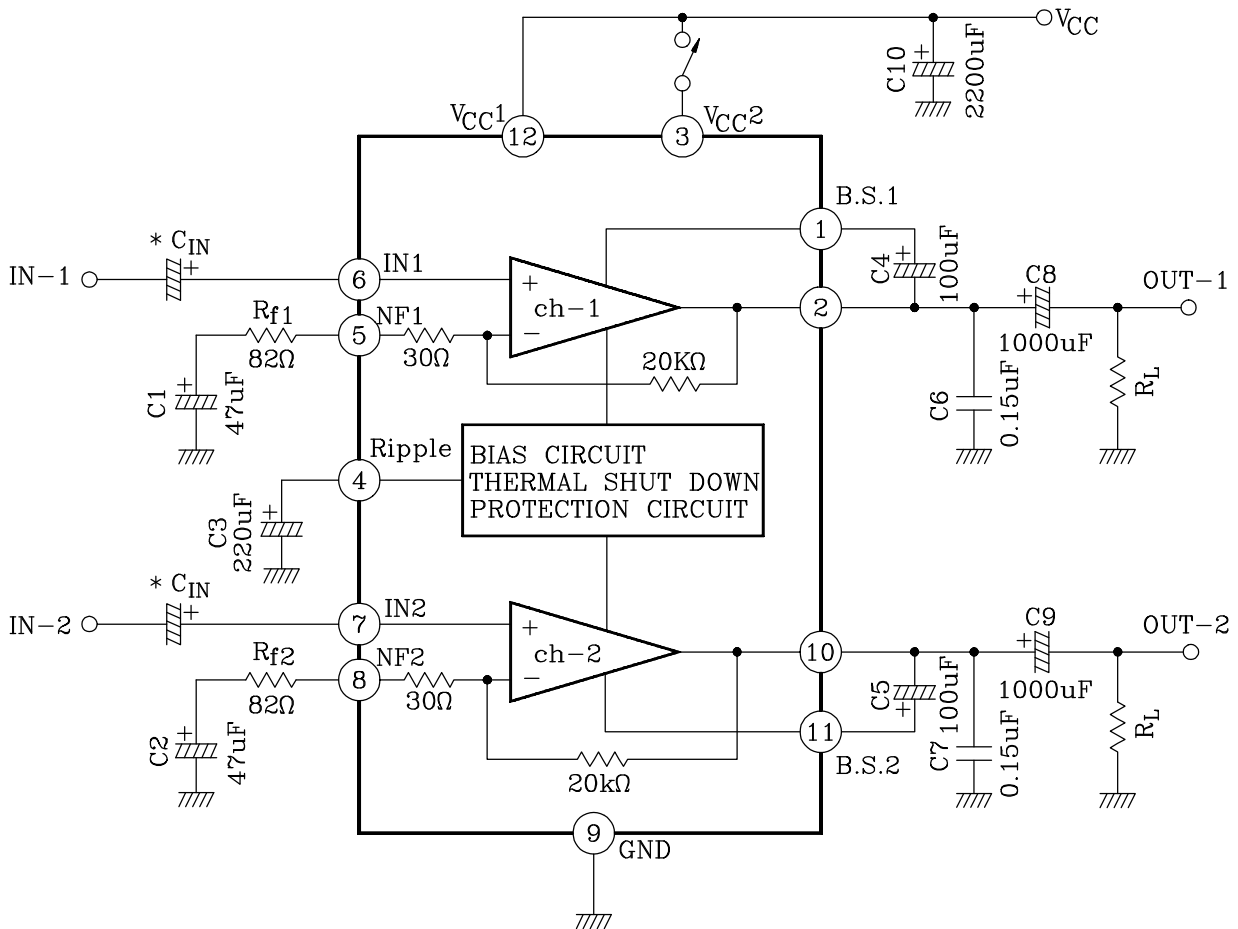
TYPICAL DC VOLTAGE OF EACH TERMINAL ($V_{CC}=9V$, $T_a=25^\circ C$)

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12
DC VOLTAGE (V)	8.2	4.5	V_{CC}	8.9	0.6	0.01	0.01	0.6	GND	4.5	8.2	V_{CC}

* ③ pin is connected to V_{CC} .

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TEST CIRCUIT & BLOCK DIAGRAM



* This IC can be used without coupling capacitor (C_{IN}). If volume slide noise occurred by input offset voltage is undesirable, it needs to use the capacitor (C_{IN}).

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