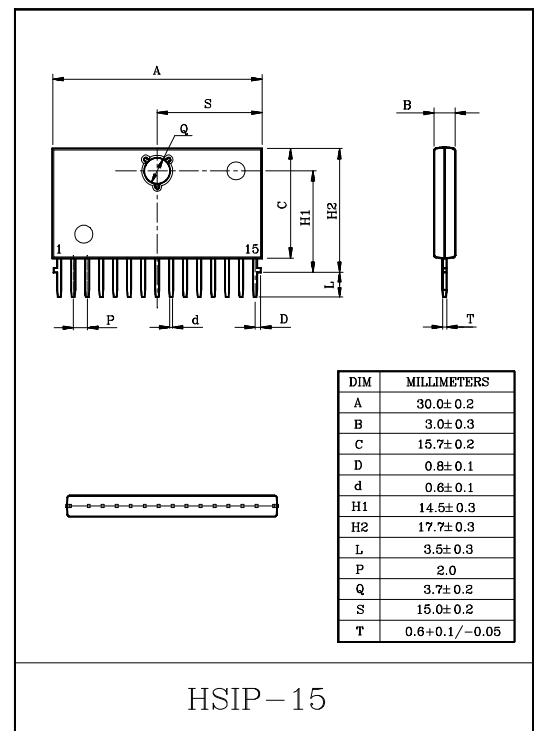


LOW FREQUENCY POWER AMPLIFIER

KIA8229K is an audio power IC with built-in two channels developed for portable radio cassette tape recorder with power ON/OFF switch. Thermal shut down protection circuit is built in.

FEATURES

- High Power
 $P_{OUT}=2.5W/CH$ (Typ.)
 $: (V_{CC}=9V, R_L=4\Omega, f=1kHz, THD=10\%)$
 $P_{OUT}=4.6W/CH$ (Typ.)
 $: (V_{CC}=12V, R_L=4\Omega, f=1kHz, THD=10\%)$
- Low Popping Noise at Power ON
- Small Quiescent Current
 $: I_{CCQ}=21mA$ (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	15.0	W
Operating Temperature	T_{opr}	-20~75	°C
Storage Temperature	T_{stg}	-55~150	°C

KIA8229K

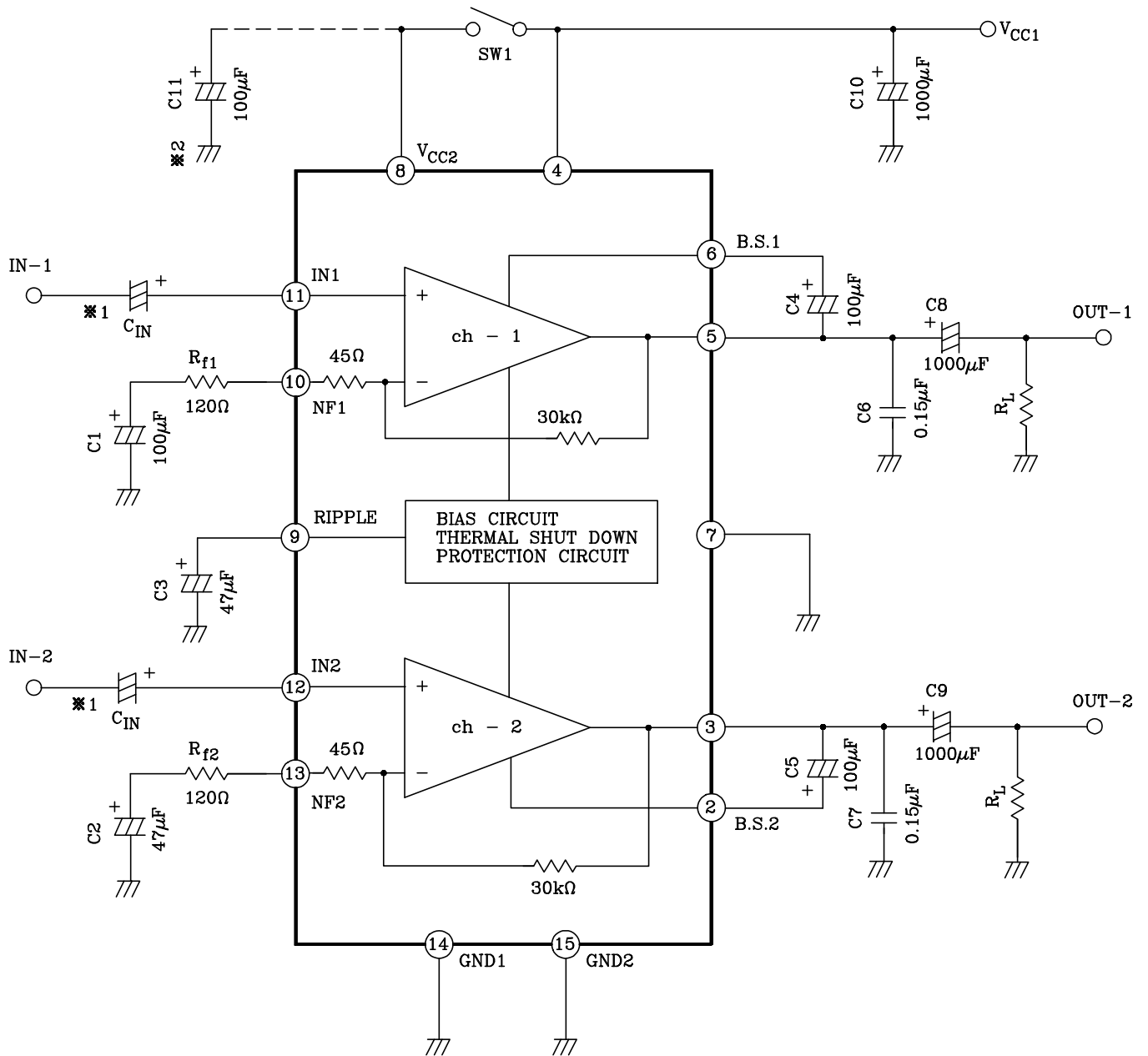
ELECTRICAL CHARACTERISTICS

(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}	—	$V_{IN}=0$	—	21	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	—	$P_{OUT}=0.4W/CH$	—	0.2	1.0	%
Voltage Gain	$G_V(1)$	—	$R_f=120\Omega$, $V_{OUT}=0.775V_{rms}$	43	45	47	dB
	$G_V(2)$	—	$R_f=0$, $V_{OUT}=0.775V_{rms}$	—	56.5	—	
Input Resistance	R_{IN}	—	—	—	30	—	k Ω
Output Noise Voltage	V_{NO}	—	$R_g=10k\Omega$, $BW=20Hz\sim 20kHz$	—	0.3	1.0	mV _{rms}
Ripple Rejection Ratio	R.R	—	$R_g=600\Omega$, $f_{RIP}=100Hz$	—	52	—	dB
Cross Talk	C.T	—	$R_g=600\Omega$, $Amp1\leftrightarrow 2$ $V_{OUT}=0dBm$, $f=1kHz$	—	50	—	dB
Input Offset Voltage	V_{I1}, V_{I2}	—	—	—	30	60	mV
Stand-by Current		—	SW1→OFF	—	1	—	μA

KIA8229K

TEST CIRCUIT & BLOCK DIAGRAM



*1 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}).

*2 The condenser between the ⑧pin and the GND (C_{11}) is for reducing pop noise when the power ON/OFF switch (SW1) is set to ON/OFF.