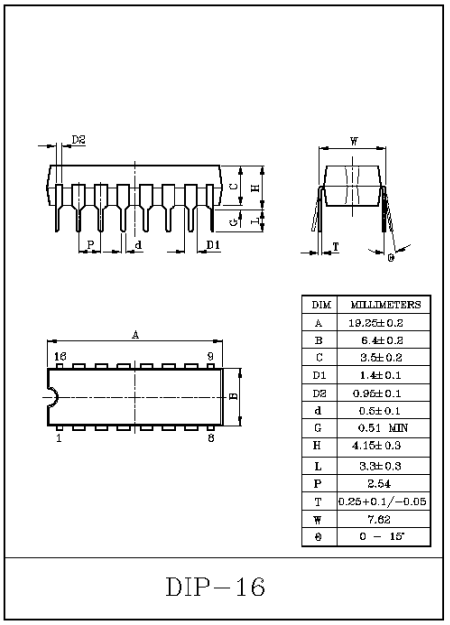
PRESET EQUALIZER IC

KIA2078P is a 3 mode preset equalizer IC.
This IC have built-in one middle boost and two type high/low boost equalizers and flat mode.
These operation mode are controlled by internal switch.



DIM	MILLIMETERS
A	19.25±0.2
B	6.4±0.2
C	3.5±0.2
D1	1.4±0.1
D2	0.95±0.1
d	0.5±0.1
G	0.51 MIN
H	4.15±0.3
L	3.3±0.3
P	2.54
T	0.25+0.1/−0.05
W	7.62
θ	0 ~ 15°

DIP-16

FEATURES

- Dual Channel
- 3 Mode Preset Equalizer
  1) Middle Boost
  2) High/Low Boost-1
  3) High/Low Boost-2
  4) Flat (No Equalizing)
- Few External Parts
- Operation Voltage Range
  : $V_{CC(opr)}$=7.5~14.0V (Ta=25℃)

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	14	V
Power Dissipation	P_D(Note)	750	mW
Operating Temperature	T_{opr}	-25~75	℃
Storage Temperature	T_{stg}	-55~150	℃

Note : Derated above Ta=25℃ 6mW/℃ for KIA2078P

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, Ta=25℃, V_{CC}=10V, Rg=620Ω, R_L=10kΩ, f=1kHz, Normal Mode)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V_{CC}	-	7.5	-	14.0	V
Quiescent Current	$I_{CCQ}1$	NORMAL Mode (A=L, B=L)	-	2.5	5.0	mA
	$I_{CCQ}2$	ROCK Mode (A=H, B=L)	-	4.2	9.0	
	$I_{CCQ}3$	CLASSIC Mode (A=L, B=H)	-	4.6	9.0	
	$I_{CCQ}4$	POP Mode (A=H, B=H)	-	4.5	9.0	
Voltage Gain	G_V	-	12..0	14.0	16.0	dB
Maximum Output Voltage	V_{OM}	THD=1%	2.5	3.0	-	V_{rms}
Total Harmonic Distortion	THD	V_{IN}=200mV_{rms}	-	0.01	0.1	%
Ripple Rejection Ratio	R.R.	V_{rip}=300mV_{rms}, f_{rip}=100Hz	-	-56	-	dB
Cross Talk	C.T.	V_{IN}=350mV_{rms}	-	-70	-60	dB
Output Noise Voltage	V_{no}	Rg=620Ω, DIN AUDIO Filter	-	20	30	μV_{rms}

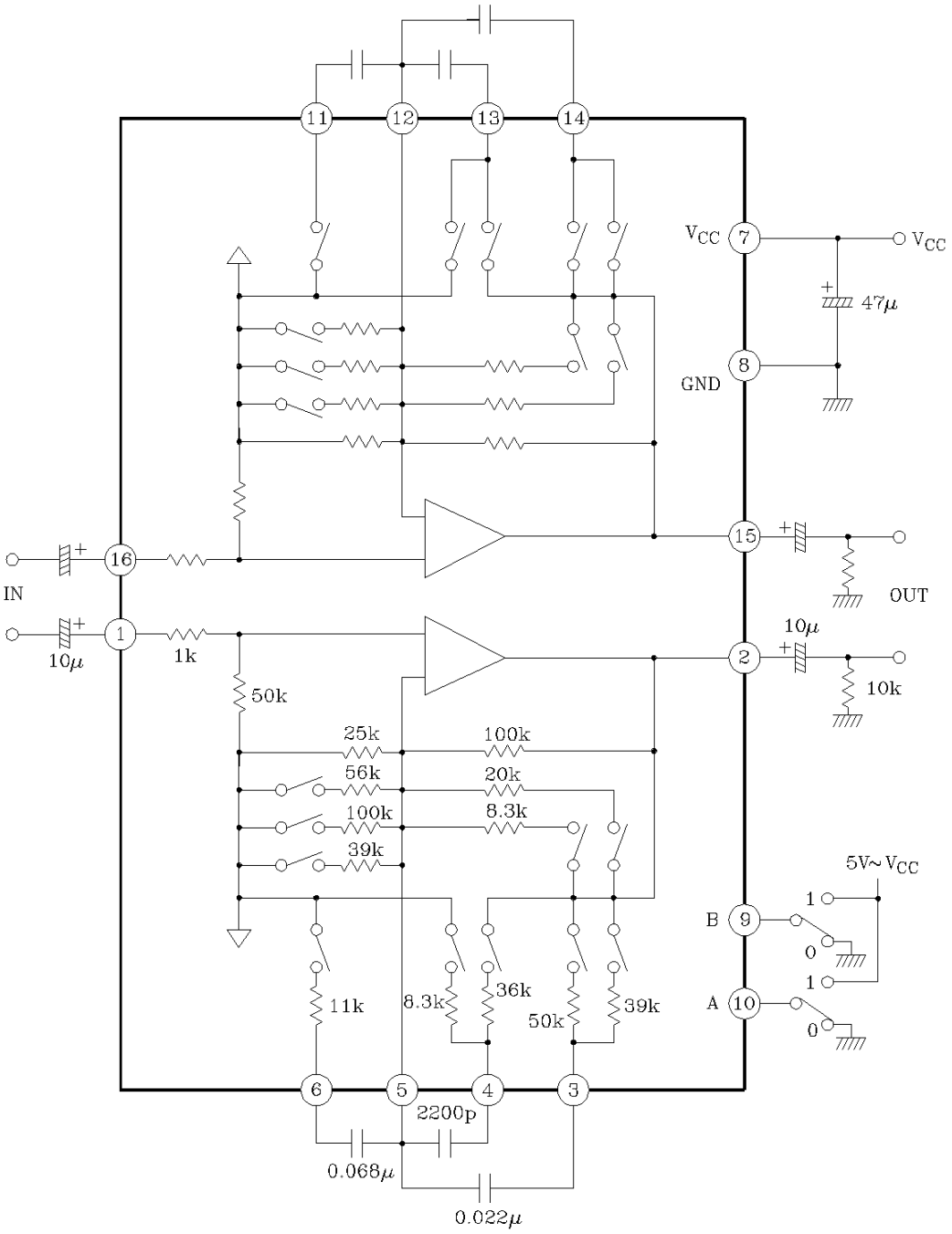
CONTROL SWITCH VOLTAGE

	Control Voltage for pin 10/9
"H" INPUT	2.0V ~ V_{CC}
"L" INPUT	0 ~ 0.8V or OPEN

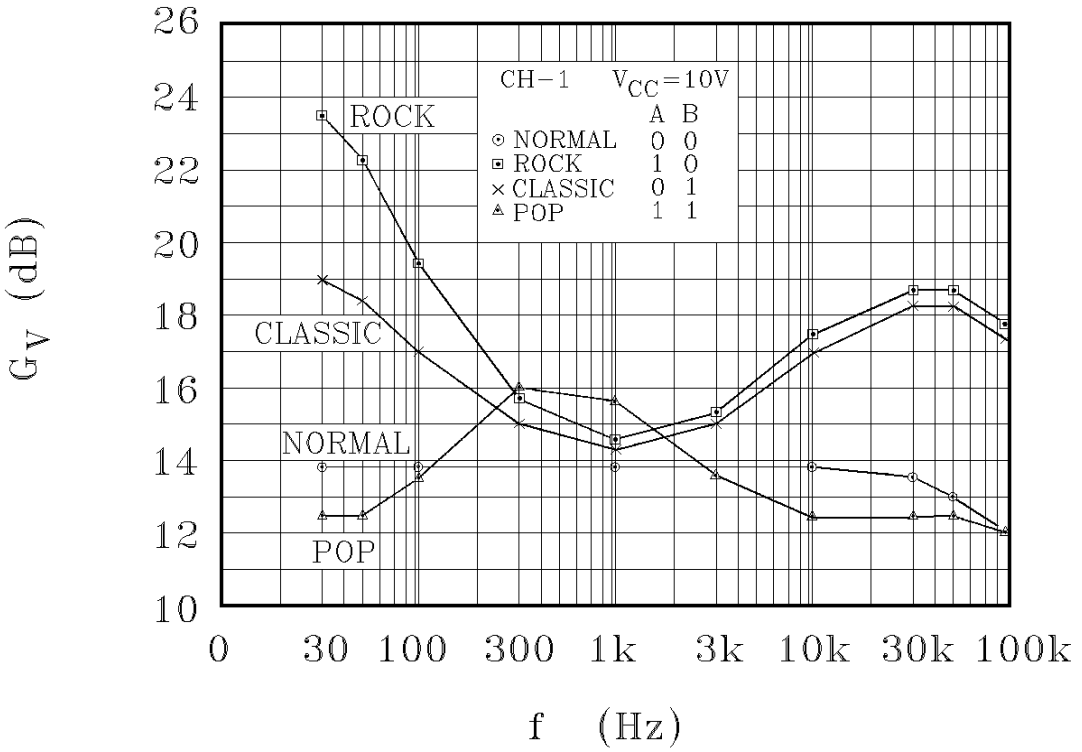
OPERATION MODE

	A (Pin 10)	B (Pin 9)	Boost Frequency
NORMAL	L	L	Flat (No Equalizing)
ROCK	H	L	High/Low boost-1
CLASSIC	L	H	High/Low boost-2
POP	H	H	Mid boost

TEST CIRCUIT



G_V – f


CH-1 V_{CC}=10V
A B
NORMAL 0 0
ROCK 1 0
CLASSIC 0 1
POP 1 1
ROCK
CLASSIC
NORMAL
POP
26
24
22
20
18
16
14
12
10
0 30 100 300 1k 3k 10k 30k 100k
f (Hz)
G_V (dB)