

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA2078P

PRESET EQUALIZER IC

TA2078P 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 controled by internal switch.

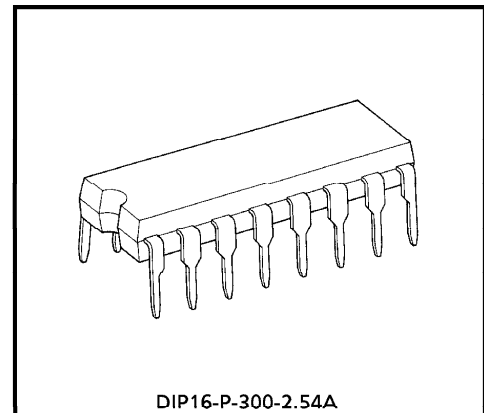
FEATURES

- 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
- Two type package

TA2078P : Dual inline package 16pin
 (Under Development)

- Operating supply voltage range
 : $V_{CC(opr)} = 7.5 \sim 14.0V$ ($T_a = 25^\circ C$)

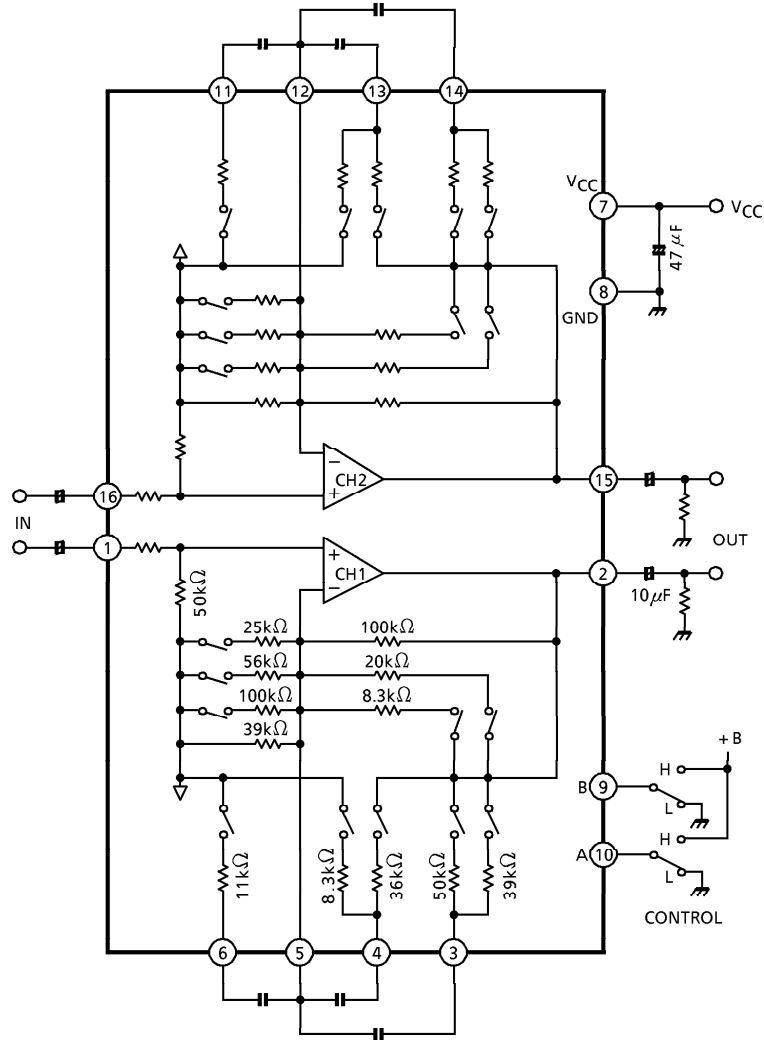


Weight : 1.00g (Typ.)

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BLOCK DIAGRAM



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	14	V
Power Dissipation	P _D (Note)	750	mW
Operating Temperature	T _{opr}	- 25~75	°C
Storage Temperature	T _{stg}	- 55~150	°C

(Note) Derated above Ta = 25°C, 6mW / °C for TA2078P.

ELECTRICAL CHARACTERISTICS

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

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V _{CC}	—	—	7.5	—	14.0	V
Quiescent Current	I _{CCQ1}	—	NORMAL mode (A = L, B = L)	—	2.5	5.0	mA
	I _{CCQ2}	—	ROCK mode (A = H, B = L)	—	4.2	9.0	
	I _{CCQ3}	—	CLASSIC mode (A = L, B = H)	—	4.6	9.0	
	I _{CCQ4}	—	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}	—	R _G = 620Ω, DIN AUDIO filter	—	20	30	μV _{rms}

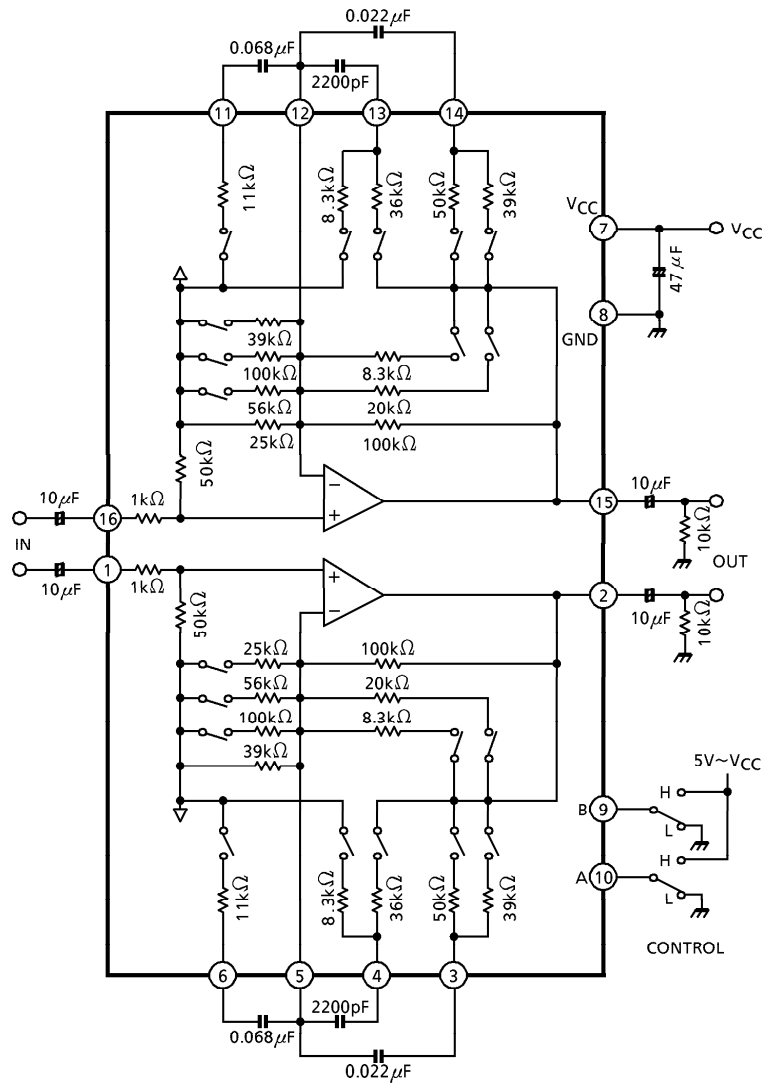
CONTROL SWITCH VOLTAGE

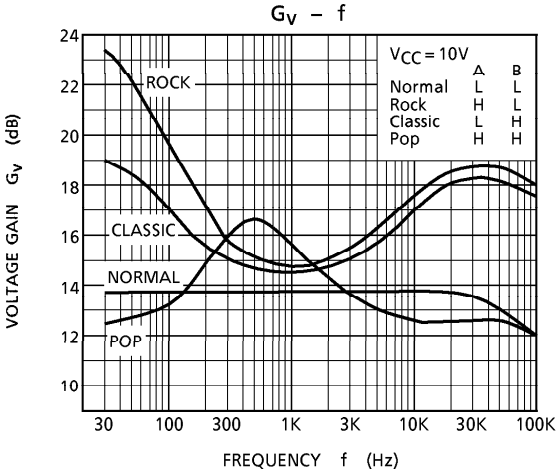
	CONTROL VOLTAGE FOR PIN 10 / 9
"H" Input	2.0V~V _{CC}
"L" Input	0~0.8V or OPEN

OPERATION MODE

	A (10PIN)	B (9PIN)	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

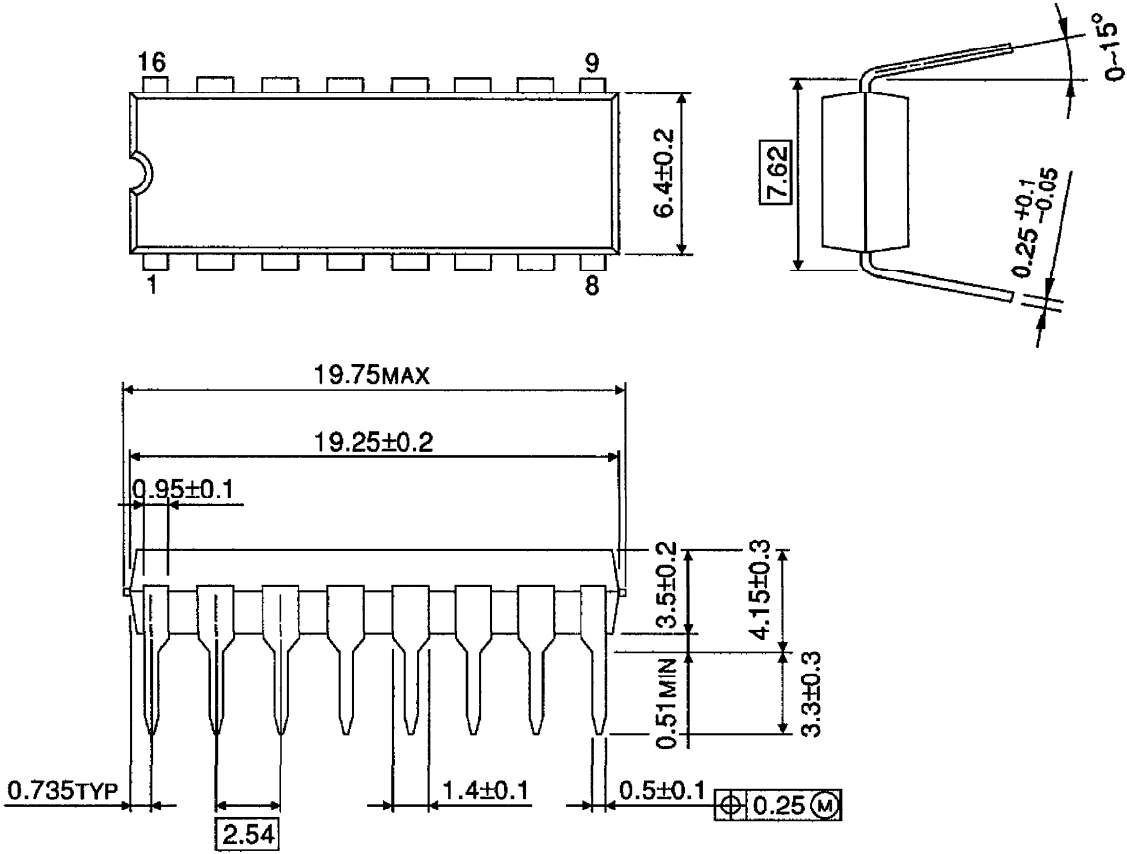
TEST CIRCUIT





OUTLINE DRAWING
DIP16-P-300-2.54A

Unit : mm



Weight : 1.00g (Typ.)