INTEGRATED CIRCUIT

TECHNICAL DATA

TA7348P

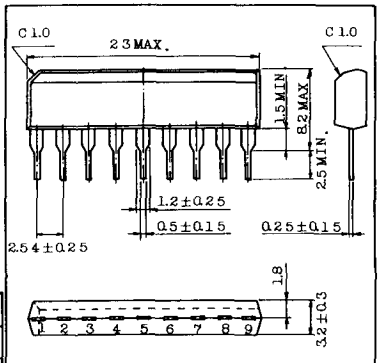
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT

SILICON MONOLITHIC

3-INPUT SWITCH

- Suitable for Audio and Video Signal
- Low Current Operation
- With Muting Terminal

Unit in mm



Lead pitch is 2.54 and tolerance is ±0.25 against theoretical center of each lead that is obtained on the basis of No.1 lead.

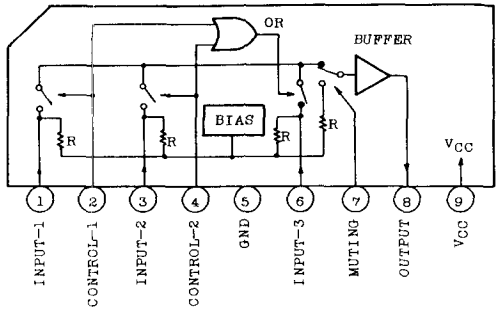
JEDEC	—
TOSHIBA	5-23B

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	14	V
Signal Level at Input Pin	e_{in}	5	V_{p-p}
Input Voltage at Control Pin	V_{IN}	-0.3~V_{CC}+0.3	V
Power Dissipation (Note)	P_D	500	mW
Operating Temperature	Topr	-10~80	°C
Storage Temperature	Tstg	-50~125	°C

Note : Derated above Ta=25°C in the proportion of 5mW/°C.

BLOCK DIAGRAM



TRUTH TABLE

CONTROL -1	CONTROL -2	MUTING	OUTPUT
H	L	L	INPUT-1
L	H	L	INPUT-2
L	L	L	INPUT-3
H	H	L	UNDEFINED
※	※	H	NOTE

※ Don't care

ELECTRICAL CHARACTERISTICS (V_{CC}=9V, Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V_{CC}	-	-	8.0	9.0	10.0	V
Total Current	I_{CC}	-	S_1=2, S_2=2, S_3=2, S_4=2 S_5=2, S_6=2	4.4	5.4	6.8	mA
Frequency Responce	G_{F1}	-	v_i=2.5Vp-p v_o(20Hz)/v_o(100kHz)	-	-	±0.5	dB
	G_{F2}		v_i=2.0Vp-p v_o(5MHz)/v_o(100kHz)				
Insertion Loss	G_L	-	v_i=2.5Vp-p, 100kHz v_o/v_i	-0.5	-0.3	-	dB
Distortion	THD1	-	v_i=2.5Vp-p, 1kHz	-	0.2	0.5	%
	THD2	-	v_i=2.0Vp-p, 4.43MHz	-	0.4	1.0	%
Differential Gain	DG	-	v_i=Input Waveform 1	-	0.5	-	%
Differential Phase	DP	-	v_i=Input Waveform 1	-	0.5	-	deg
Cross Talk	C_{R1}	-	v_i=2.0Vp-p, $\frac{v_o}{v_i}$ 4.43MHz, (Note 2)	-	-	-60	dB
	C_{R2}	-	v_i=2.0Vp-p, $\frac{v_o}{v_i}$ 4.43MHz, (Note 3)	-	-	-50	dB
Output Offset Voltage	v_{OFF}	-	(Note 4)	-	-	±15	mV
SW Control Voltage	V_{CH}	-	(Note 5)	4.1	-	-	V
	V_{CL}	-	(Note 6)	-	-	1.0	V
Input Impedance	R_i	-	-	-	15	-	kΩ
Output Impedance	R_o	-	-	-	10	-	Ω

Note 1 : If not specified the setting of switches, measure in the following three modes
a) S_1=S_4=1, S_2=S_3=S_5=S_6=2
b) S_2=S_5=1, S_1=S_3=S_4=S_6=2
c) S_3=1, S_1=S_2=S_4=S_5=S_6=2

Note 2 : In the fixed setting of S_6=2, measure in all combination of S_1 through S_5, except the three cases of a) S_1=S_4=1, b) S_2=S_5=1, c) S_3=1, S_4=S_5=2.

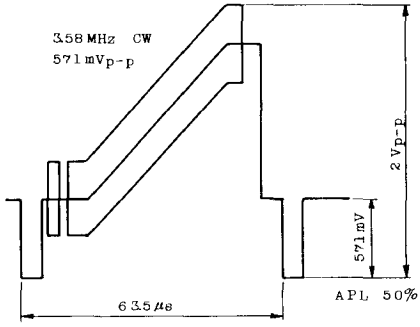
Note 3 : In the fixed setting of S_6=1, measure in all combination of S_1 through S_5.

Note 4 : In S_1=S_2=S_3=2, read the difference of output DC voltage among the following four Modes.
a) S_4=1, S_5=S_6=2
b) S_5=1, S_4=S_6=2
c) S_4=S_5=S_6=2
d) S_6=1, S_4=S_5=1 or 2

Note 5 : Guaranteed Switching Level (Active)

Note 6 : Guaranteed Switching Level (Non active)

INPUT WAVEFROM 1



TEST CIRCUIT