

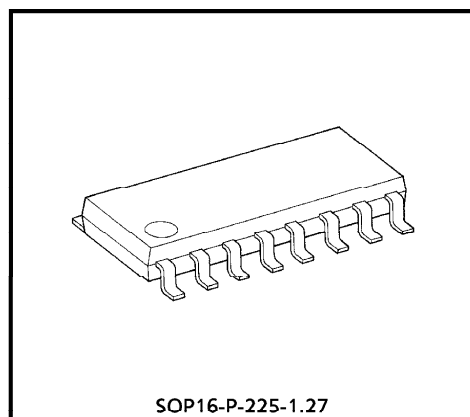
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8517F

HIGH SPEED DUAL COMPARATOR

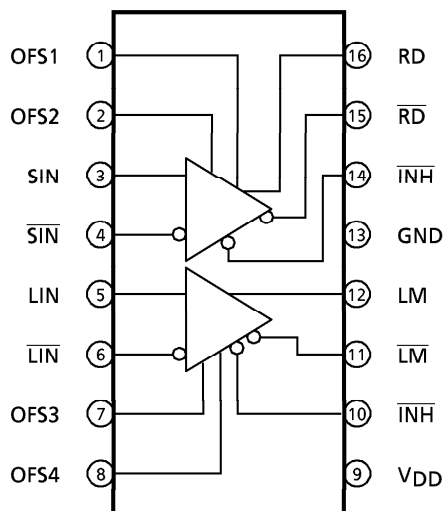
FEATURES

- Standard +5V power supply
- TTL OUT
- FLP-16pin
- Inhibit function



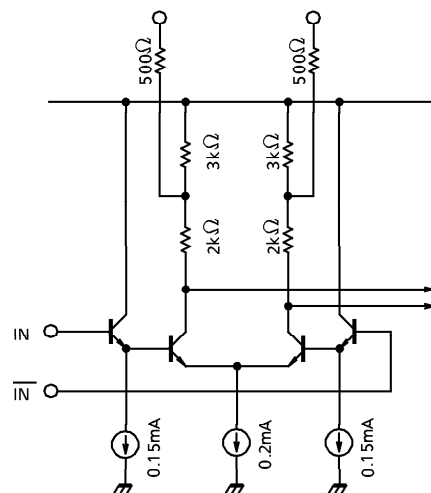
Weight : 0.2g (Typ.)

BLOCK DIAGRAM & PIN CONNECTION (TOP VIEW)



EQUIVALENT CIRCUIT

- Off set control terminal (OFS1, 2, 3, 4), Input terminal (SIN, $\overline{\text{SIN}}$, LIN, $\overline{\text{LIN}}$)



961001EBA2

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The products described in this document are subject to foreign exchange and foreign trade control laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{DD}	7	V
Diffusion Input Voltage	DV _{IN}	± 3	V
Common Mode Input Voltage	CV _{IN}	- 0.3~V _{DD} + 0.3	V
Power Dissipation	P _D	0.625	W
Operating Temperature	T _{opr}	- 20~85	°C
Storage Temperature	T _{stg}	- 55~150	°C
Inhibit Terminal	V _{ih}	- 0.3~V _{DD} + 0.3	V

Recommended Operating Range : V_{DD} = 5V ± 10%, Ta = - 20~70°C

(*) On Glass Epoxy PCD (20 × 20 × 1.6mm)

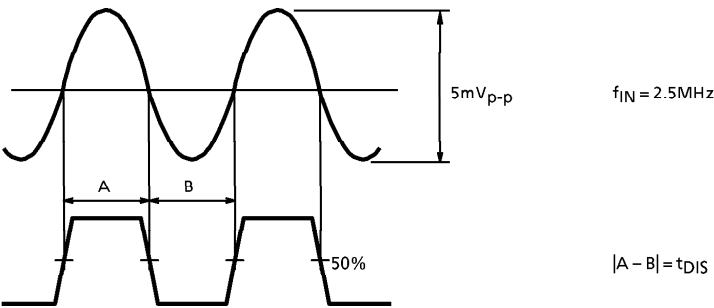
ELECTRICAL CHARACTERISTICS (V_{DD} = 5V, Ta = 25°C Unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Power Supply Current	I _{DD}	—	—	—	25	40	mA
Input Sensitivity	V _{MIN}	—	—	5	—	—	mV
Input Off Set Voltage	V _{IO}	—	OFS 1, 2, 3, 4 Terminal → OPEN	- 10	—	+ 10	mV
Input Bias Current	I _{IB}	—	—	—	—	6	μA
Input Offset Current	I _{IO}	—	—	—	—	3	μA
Input Resistance	R _I	—	—	10	—	—	kΩ
Input Capacitance	C _I	—	—	—	—	3	pF
Common Mode Input Voltage Range	CV _{IN}	—	—	2.0	—	4.3	V
Open-Loop Gain	G _V	—	—	70	—	—	dB
Output Voltage	V _{OH}	—	V _{DD} = 4.5V, I _{OH} = 1mA	2.4	—	—	V
	V _{OL}	—	V _{DD} = 4.5V, I _{OL} = 10mA	—	—	0.5	
Inhibit Terminal Input Voltage	V _{IH}	—	—	2.0	—	—	V
	V _{IL}	—	—	—	—	0.8	
Inhibit Propagation Delay	t _{ih}	—	—	—	—	30	μs
Propagation Delay	t _{pLH}	—	(Note 2)	—	11	20	ns
	t _{pHL}	—	(Note 2)	—	10	22	
Rise Time	t _r	—	(Note 2)	—	4	—	ns
Fall Time	t _f	—	(Note 2)	—	2	—	ns
Time Distortion	t _{DIS}	—	(Note 1) V _{IN} = 5mV _{p-p} , f _{IN} = 2.5MHz	—	2	—	ns

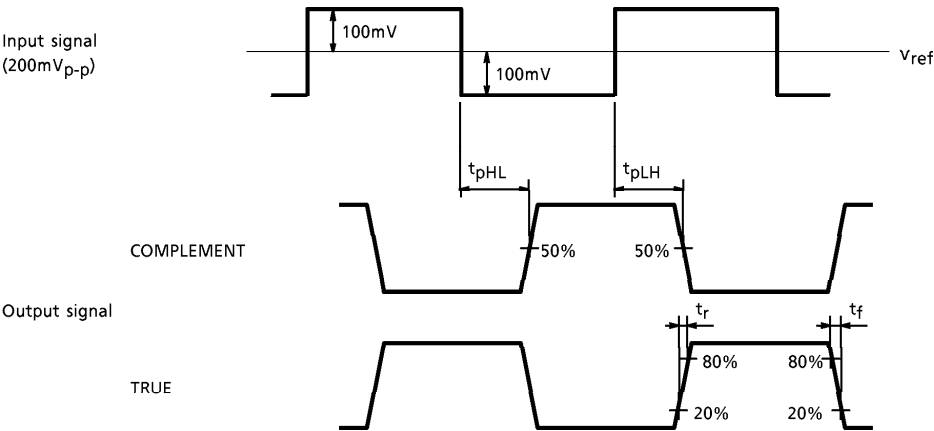
INHIBIT FUNCTION

	OUTPUT FUNCTION	
	RD, LM	$\overline{\text{RD}}$, $\overline{\text{LM}}$
High	Active	Active
Low	High	High

(Note 1)

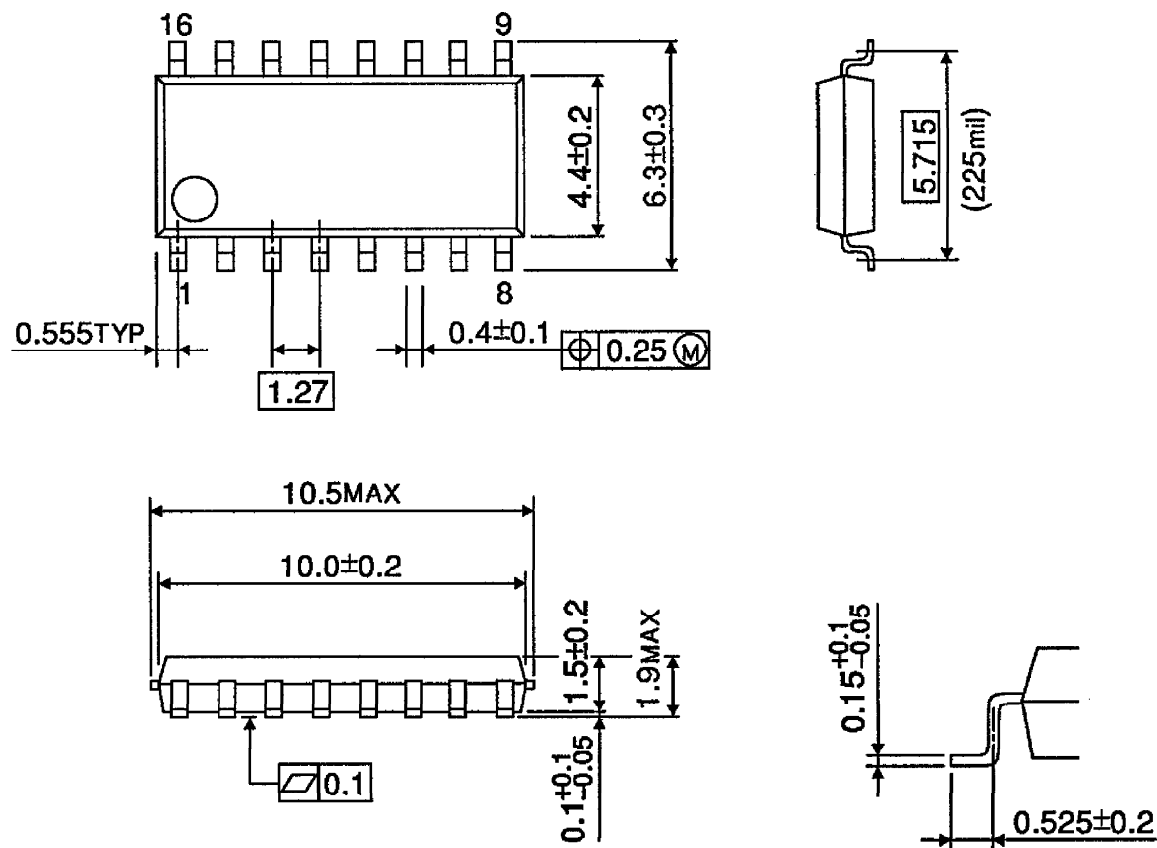


(Note 2)



OUTLINE DRAWING
SOP16-P-225-1.27

Unit : mm



Weight : 0.2g (Typ.)

Copyright Each Manufacturing Company.

All Datasheets cannot be modified without permission.

This datasheet has been download from :

www.AllDataSheet.com

100% Free DataSheet Search Site.

Free Download.

No Register.

Fast Search System.

www.AllDataSheet.com