

TOSHIBA

TA8517F

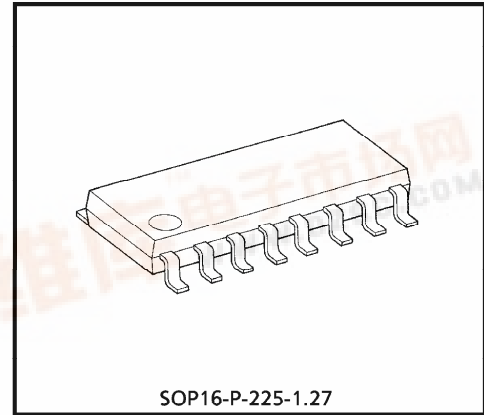
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8517F

HIGH SPEED DUAL COMPARATOR

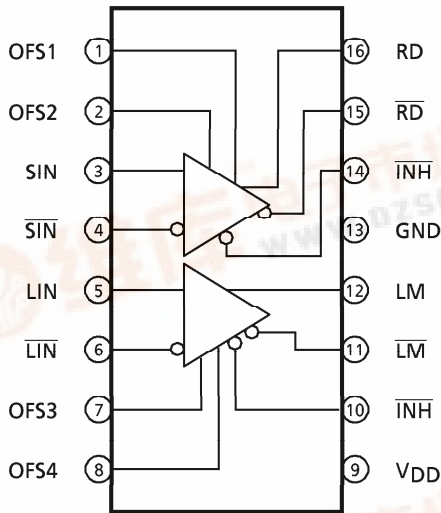
FEATURES

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



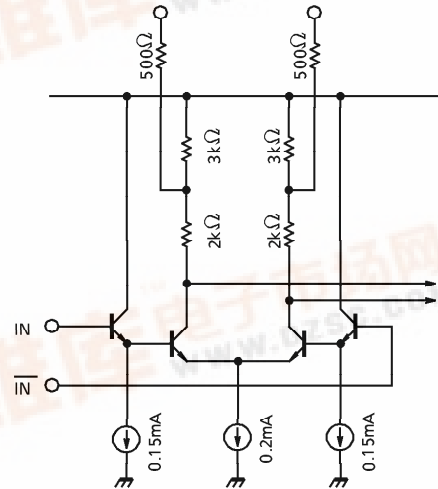
Weight : 0.2g (Typ.)

BLOCK DIAGRAM & PIN CONNECTION (TOP VIEW)



EQUIVALENT CIRCUIT

- Off set control terminal (OFS1, 2, 3, 4), Input terminal (SIN, SIN-bar, LIN, LIN-bar)



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MAXIMUM RATINGS (Ta = 25°C)

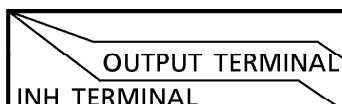
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{DD}	7	V
Diffusion Input Voltage	DV _{IN}	± 3	V
Common Mode Input Voltage	CV _{IN}	- 0.3~V _{DD} + 0.3	V
Power Dissipation	P _D	0.625	W
Operating Temperature	T _{opr}	- 20~85	°C
Storage Temperature	T _{stg}	- 55~150	°C
Inhibit Terminal	V _{ih}	- 0.3~V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

Recommended Operating Range : V_{DD} = 5V ± 10%, Ta = - 20~70°C
 (*) On Glass Epoxy PCD (20 × 20 × 1.6mm)

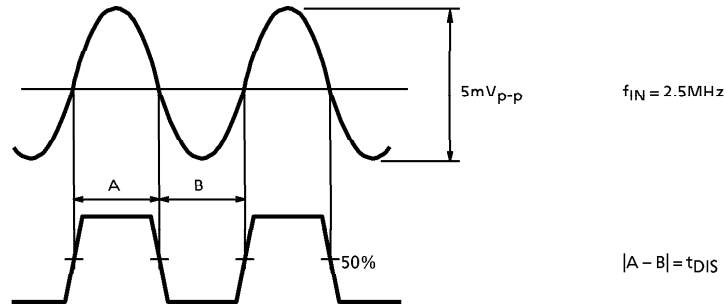
ELECTRICAL CHARACTERISTICS (V_{DD} = 5V, Ta = 25°C Unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	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

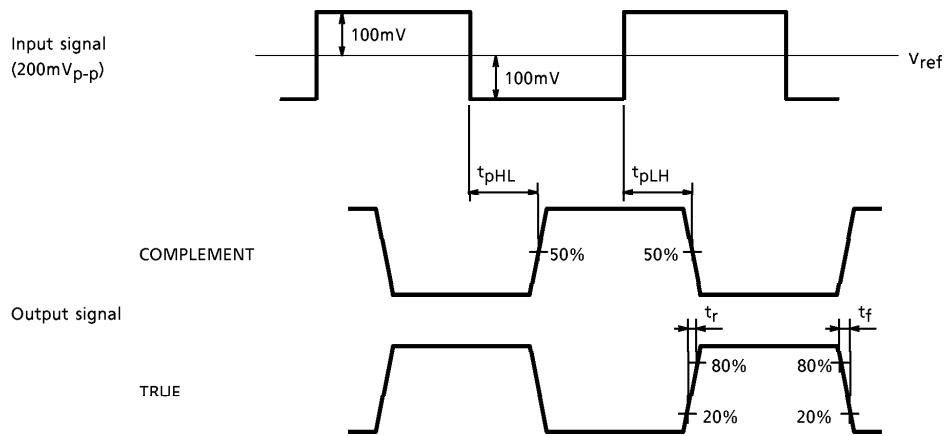
INHIBIT FUNCTION

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

(Note 1)

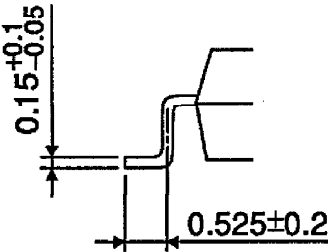
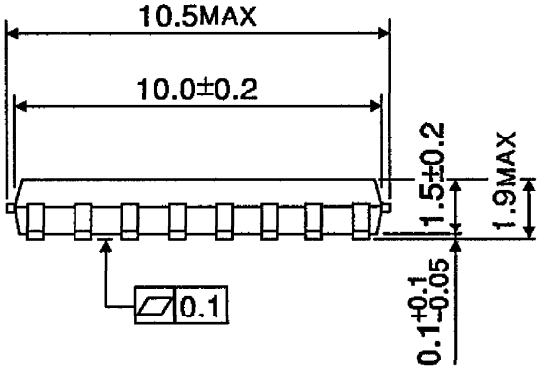
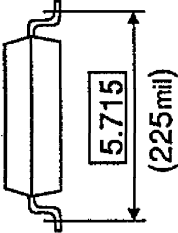
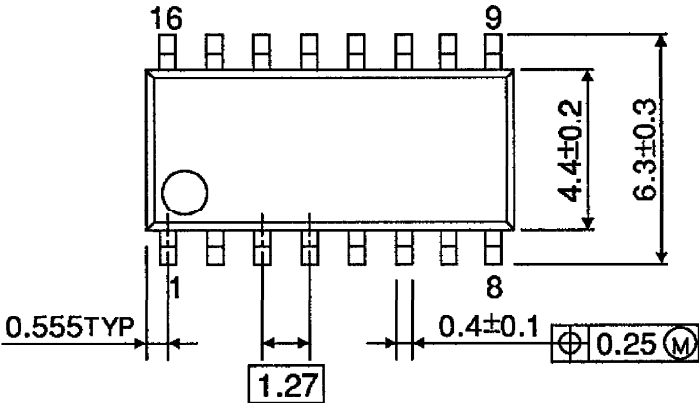


(Note 2)



OUTLINE DRAWING
SOP16-P-225-1.27

Unit : mm



Weight : 0.2g (Typ.)