

TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

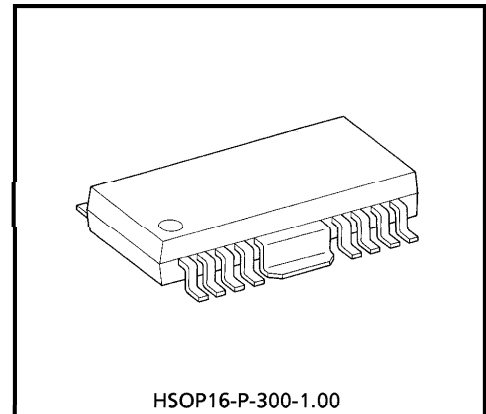
# TD62M8603F

## 8CH LOW SATURATION VOLTAGE SOURCE DRIVER

TD62M8603F is Multi Chip IC incorporates 8 low saturation discrete (2SA1203) transistors.  
 This IC is suitable for a battery use motor drive and LED display module applications.

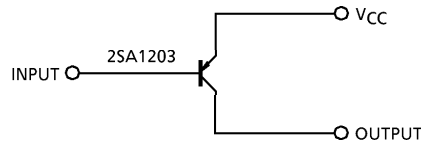
### FEATURES

- Suitable for Motor drive circuit and LED display module
- External Bias Resistor
- Low Saturation Voltage
  - $V_{CE(sat)} = 0.10V$  (Typ.) at  $I_C = 0.5A$
  - $V_{CE(sat)} = 0.20V$  (Max.) at  $I_C = 1.5A$
- HSOP16 power small package sealed

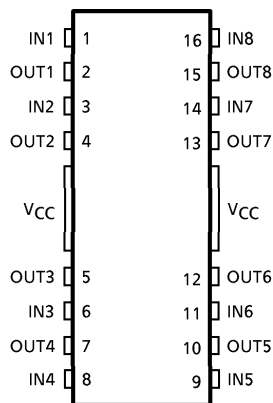


Weight : 0.50g (Typ.)

### BLOCK DIAGRAM



### PIN CONNECTION (TOP VIEW)



961001EBA2

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## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	- 30	V
Breakdown Voltage	V <sub>CBO</sub>	- 30	V
	V <sub>CEO</sub>	- 30	
	V <sub>EBO</sub>	- 5	
Output Current	I <sub>O</sub>	- 1.5	A / ch
	I <sub>O</sub> (PEAK)	(Note) - 3.0	
Base Current	I <sub>B</sub>	- 0.3	A
Power Dissipation	P <sub>D</sub>	900	mW
Junction Temperature	T <sub>j</sub>	150	°C
Operating Temperature	T <sub>opr</sub>	- 40~85	°C
Storage Temperature	T <sub>stg</sub>	- 55~150	°C

(Note) T = 10ms single pulse

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

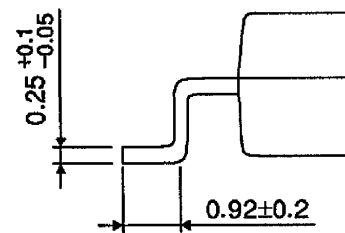
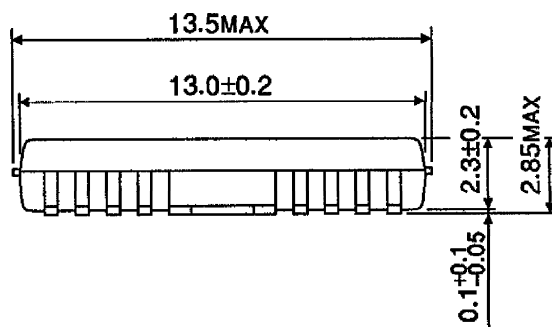
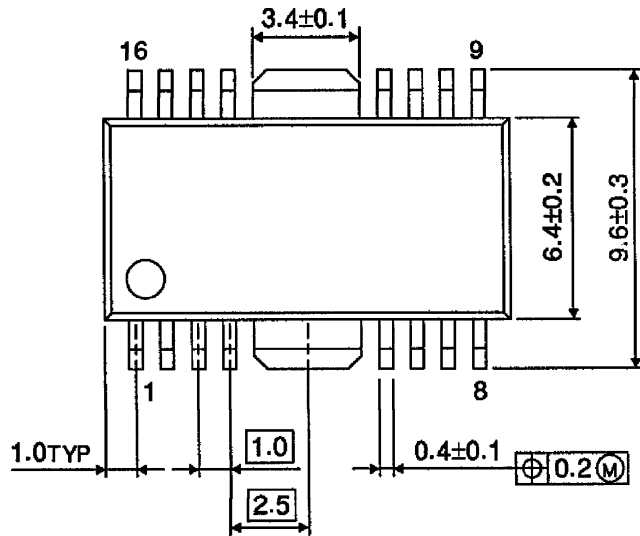
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Current Gain	h <sub>FE</sub> (1)	—	V <sub>CE</sub> = - 2V, I <sub>C</sub> = - 0.5A	160	—	320	—
	h <sub>FE</sub> (2)	—	V <sub>CE</sub> = - 2V, I <sub>C</sub> = - 1.5A	50	100	—	
Saturation Voltage	V <sub>CE</sub> (sat)	—	I <sub>C</sub> = - 0.5A, I <sub>B</sub> = - 10mA	—	- 0.1	- 0.50	V
			I <sub>C</sub> = - 1.5A, I <sub>B</sub> = - 30mA	—	—	- 2.0	
Transition Frequency	f <sub>T</sub>	—	V <sub>CE</sub> = - 2V, I <sub>C</sub> = - 0.5A	—	120	—	MHz
Leakage Current	I <sub>OL</sub>	—	V <sub>CC</sub> = - 30V	—	0	- 5	μA
Base-Emitter Forward Voltage	V <sub>BE</sub>	—	V <sub>CE</sub> = - 2V, I <sub>C</sub> = - 0.5A	—	—	- 1.0	V

## PRECAUTIONS for USING

Utmost care is necessary in the design of the output line, V<sub>CC</sub> and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

OUTLINE DRAWING  
HSOP16-P-300-1.00

Unit : mm



Weight : 0.50g (Typ.)