

TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

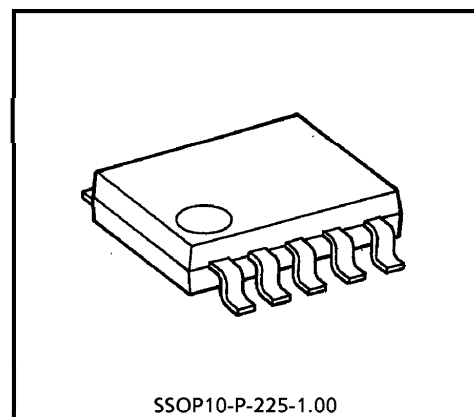
# TD62M3601F

## 3CH LOW SATURATION VOLTAGE SOURCE DRIVER

TD62M3601F is multi chip IC incorporates 3 low saturation voltage discrete transistor (PNP).

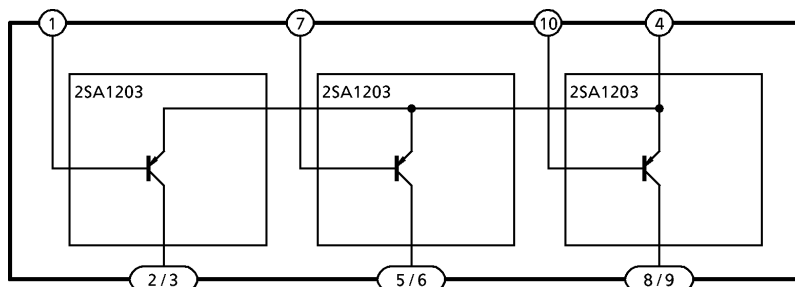
### FEATURES

- Suitable for high efficiency motor drive circuit
- SSOP10 1mm pitch small package sealed
- High output currentage  
 $I_{OUT(AVE.)} = 1.5A$   
 $I_{OUT(PEAK)} = 3.0A$

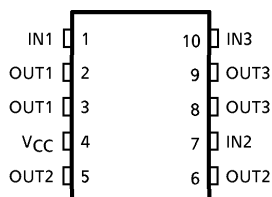


SSOP10-P-225-1.00  
 Weight : 0.10g (Typ.)

### BLOCK DIAGRAM



### PIN CONNECTION (TOP VIEW)



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.

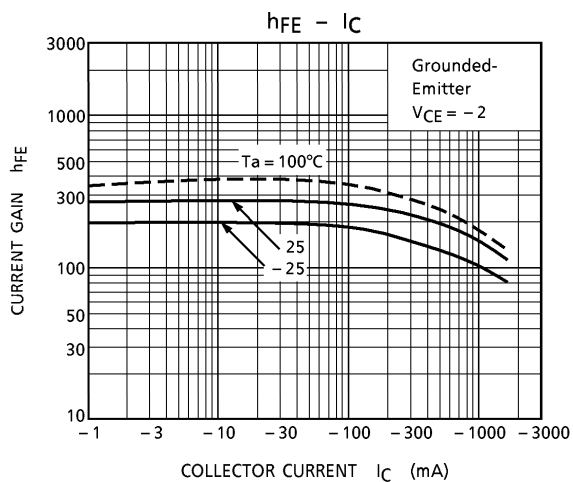
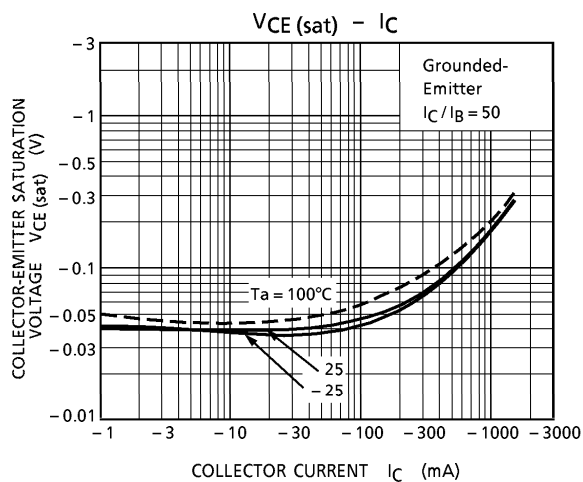
## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	- 30	V
Collector-Base Voltage	V <sub>CB0</sub>	- 30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	- 30	V
Emitter-Base Voltage	V <sub>EB0</sub>	- 5	V
Output Transistor Current	I <sub>O</sub>	- 1.5	A / ch
	I <sub>O</sub> (PEAK)	- 3.0 (Note)	
Base Current	I <sub>B</sub>	- 0.3	A
Power Dissipation	P <sub>D</sub>	590	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 Max. and maximum duty is less than 30%.

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	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

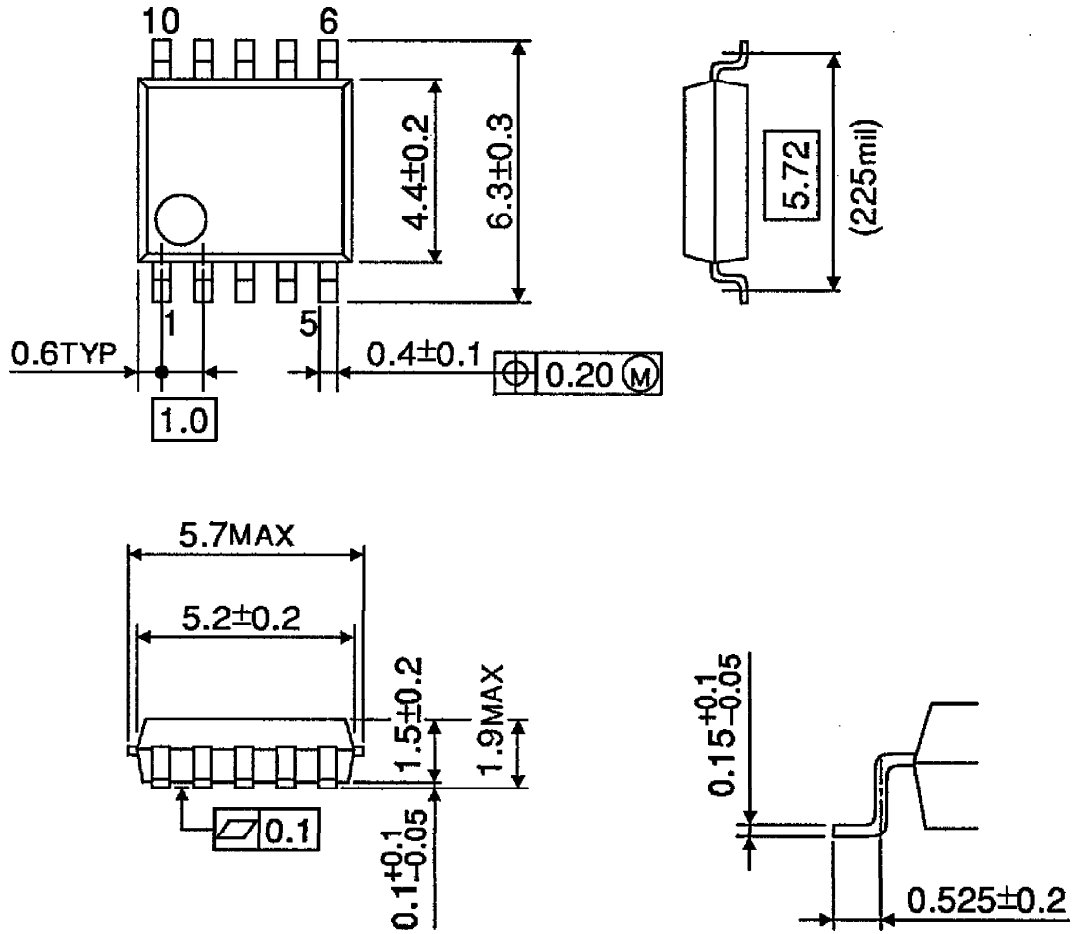


**PRECAUTIONS for USING**

Utmost care is necessary in the design of the output line,  $V_{CC}$  and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

OUTLINE DRAWING  
SSOP10-P-225-1.00

Unit : mm



Weight : 0.10g (Typ.)