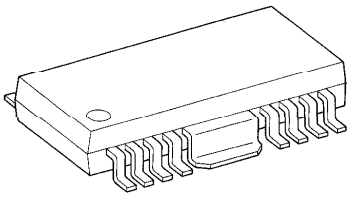
TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

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.



HSOP16-P-300-1.00

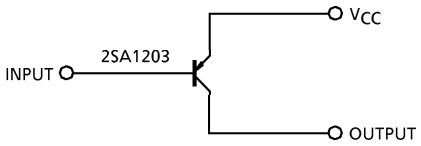
Weight : 0.50g (Typ.)

FEATURES

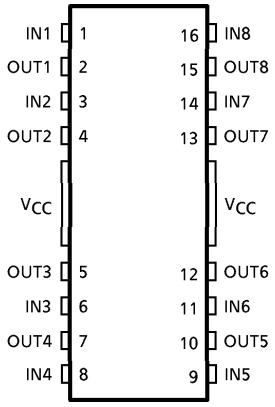
- Suitable for Motor drive circuit and LED display module
- External Bias Resistor
- Low Saturation Voltage

  $V_{CE\ (sat)} = 0.10V$ (Typ.) at $I_C = 0.5A$
  $V_{CE\ (sat)} = 0.20V$ (Max.) at $I_C = 1.5A$
- HSOP16 power small package sealed

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



961001EBA2

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	− 30	V
Breakdown Voltage	V_{CBO}	− 30	V
	V_{CEO}	− 30	
	V_{EBO}	− 5	
Output Current	I_O	− 1.5	A / ch
	$I_{O\ (PEAK)}$	(Note) − 3.0	
Base Current	I_B	− 0.3	A
Power Dissipation	P_D	900	mW
Junction Temperature	T_j	150	°C
Operating Temperature	T_{opr}	− 40~85	°C
Storage Temperature	T_{stg}	− 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	$h_{FE\ (1)}$	—	V_{CE} = − 2V, I_C = − 0.5A	160	—	320	—
	$h_{FE\ (2)}$	—	V_{CE} = − 2V, I_C = − 1.5A	50	100	—	
Saturation Voltage	$V_{CE\ (sat)}$	—	I_C = − 0.5A, I_B = − 10mA	—	− 0.1	− 0.50	V
			I_C = − 1.5A, I_B = − 30mA	—	—	− 2.0	
Transition Frequency	f_T	—	V_{CE} = − 2V, I_C = − 0.5A	—	120	—	MHz
Leakage Current	I_{OL}	—	V_{CC} = − 30V	—	0	− 5	μA
Base-Emitter Forward Voltage	V_{BE}	—	V_{CE} = − 2V, I_C = − 0.5A	—	—	− 1.0	V

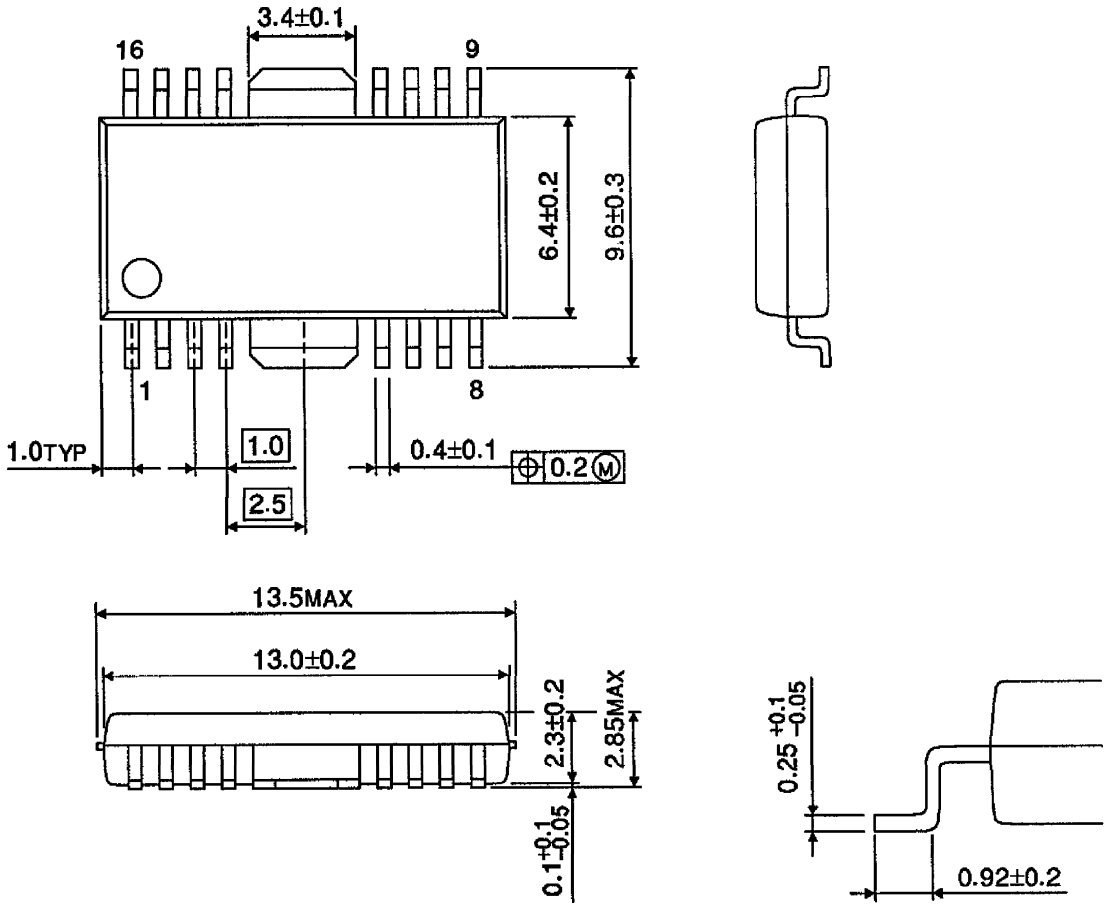
PRECAUTIONS for USING

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

HSOP16-P-300-1.00

Unit : mm



Weight : 0.50g (Typ.)