

# TD62M8600F

## 8CH LOW SATURATION VOLTAGE SOURCE DRIVER

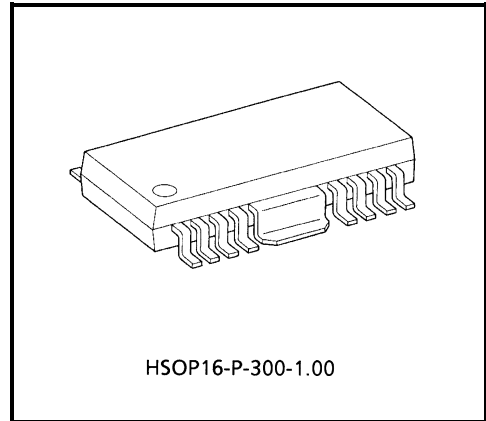
TD62M8600F is Multi Chip IC incorporates 8 low saturation discrete transistors equipped Fly-wheeling Diode and Bias resistor.

This IC is suitable for a battery use motor drive and LED display module applications.

Please observe the thermal condition for using.

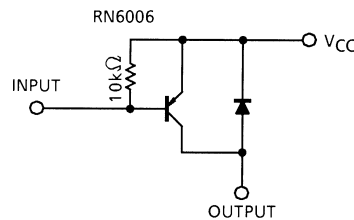
### FEATURES

- Suitable for Motor drive circuit and LED display module
- Bias Resistor and Diodes are equipped : R = 10 kΩ
- Low Saturation Voltage  
 $V_{CE(sat)} = 0.13 \text{ V (Typ.) at } I_C = -1.0 \text{ A}$   
 $V_{CE(sat)} = 0.25 \text{ V (Typ.) at } I_C = -2.0 \text{ A}$
- HSOP16 (1 mm pitch) power small package sealed

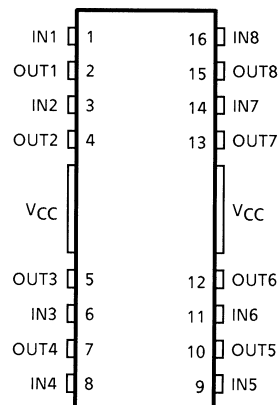


Weight: 0.50 g (Typ.)

### SCHEMATICS



### PIN CONNECTION (TOP VIEW)



## MAXIMUM RATINGS (Ta = 25°C)

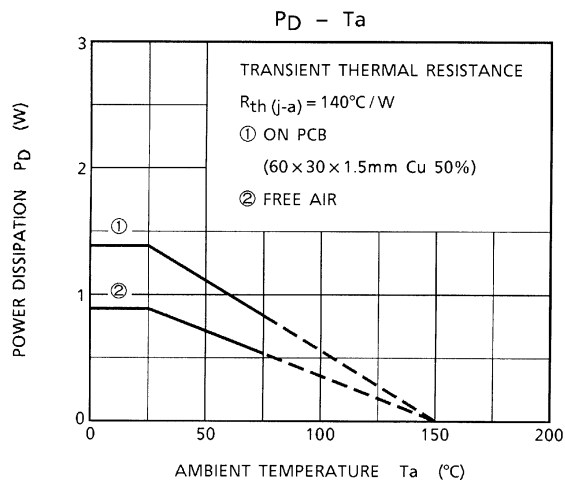
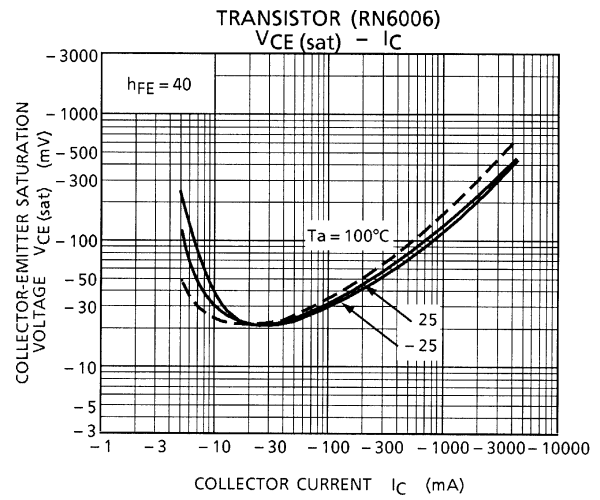
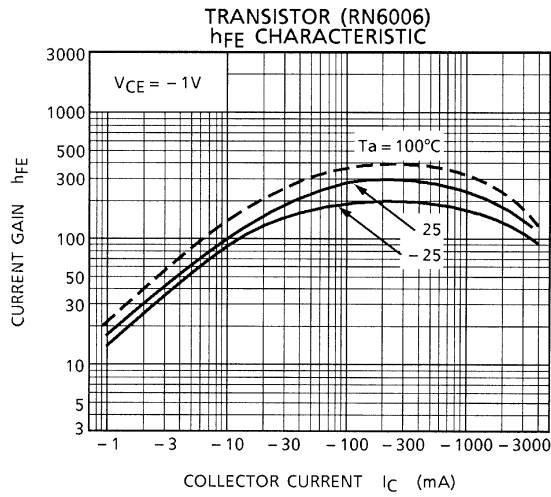
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	-10	V
Breakdown Voltage	V <sub>CB0</sub>	-10	V
	V <sub>CER</sub>	-10	
	V <sub>EBO</sub>	-6	
Output Current	I <sub>O</sub>	-2	A / ch
	I <sub>O</sub> (PEAK)	-4 (Note 1)	
Base Current	I <sub>B</sub> (AVE)	-0.4	A
	I <sub>B</sub> (PEAK)	-0.8	
Fly-wheeling Diode Forward Current	I <sub>F</sub>	-2 (Note 2)	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 1: T = 10 ms MAX. and maximum duty is less than 30%.

Note 2: T = 10 ms 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> = -1 V, I <sub>C</sub> = -0.5 A	160	—	600	—
	h <sub>FE</sub> (2)		V <sub>CE</sub> = -1 V, I <sub>C</sub> = -1.5 A	60	130	—	
Saturation Voltage	V <sub>CE</sub> (sat)	—	I <sub>C</sub> = -1 A, I <sub>B</sub> = -25 mA	—	-0.13	-0.25	V
			I <sub>C</sub> = 2 A, I <sub>B</sub> = 50 mA	—	-0.25	-0.50	
Transition Frequency	f <sub>T</sub>	—	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -0.5 A	—	150	—	MHz
Leakage Current	I <sub>OL</sub>	—	V <sub>CC</sub> = -10 V	—	0	-10	μA
Fly-wheeling Diode Forward Voltage	V <sub>F</sub>	—	I <sub>F</sub> = -300 mA	—	-0.89	-1.2	V
			I <sub>F</sub> = -450 mA, 10 ms	—	-1.60	—	
Base-Emitter Resistor	R <sub>BE</sub>	—	—	7	10	13	kΩ
Base-Emitter Forward Voltage	V <sub>BE</sub>	—	V <sub>CE</sub> = -1 V, I <sub>C</sub> = -2.0 A	—	-0.84	-1.5	V



**PRECAUTIONS for USING**

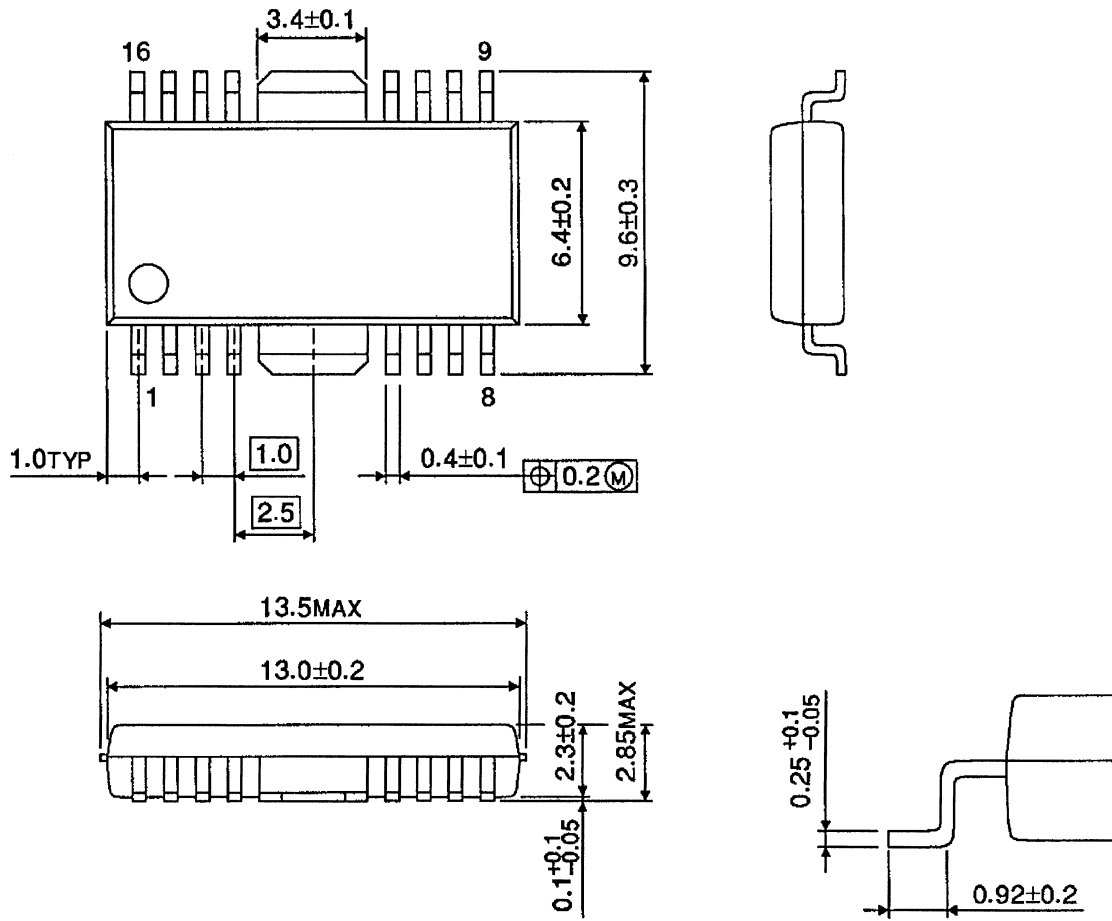
This IC does not integrate protection circuits such as overcurrent and overvoltage protectors. Thus, if excess current or voltage is applied to the IC, the IC may be damaged. Please design the IC so that excess current or voltage will not be applied to the IC.

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

## PACKAGE DIMENSIONS

HSOP16-P-300-1.00

Unit: mm



Weight: 0.50 g (Typ.)

**RESTRICTIONS ON PRODUCT USE**

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