

TD62M8600F

8CH LOW SATURATION VOLTAGE SOURCE DRIVER

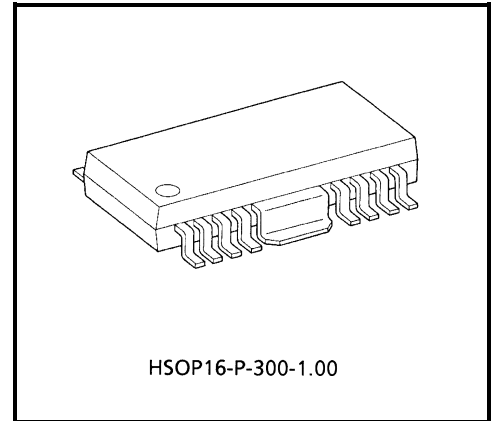
TD62M8600F is Multi Chip IC incorporates 8 low saturation discrete transistors equipped Fly-wheeling Diode and Bias resistor.

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

Please observe the thermal condition for using.

FEATURES

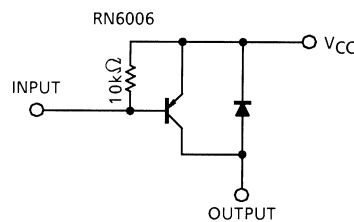
- Suitable for Motor drive circuit and LED display module
- Bias Resistor and Diodes are equipped : $R = 10\text{ k}\Omega$
- Low Saturation Voltage
 $V_{CE(sat)} = 0.13\text{ V (Typ.) at } I_C = -1.0\text{ A}$
 $V_{CE(sat)} = 0.25\text{ V (Typ.) at } I_C = -2.0\text{ A}$
- HSOP16 (1 mm pitch) power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



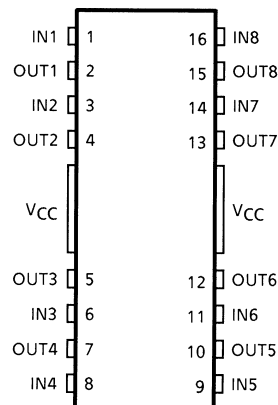
HSOP16-P-300-1.00

Weight: 0.50 g (Typ.)

SCHEMATICS



PIN CONNECTION (TOP VIEW)



MAXIMUM RATINGS (Ta = 25°C)

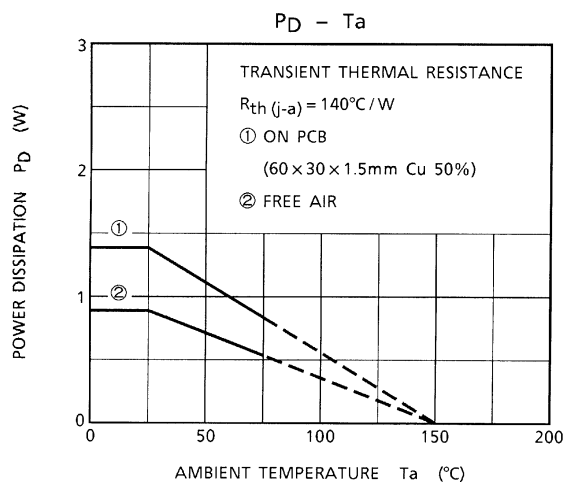
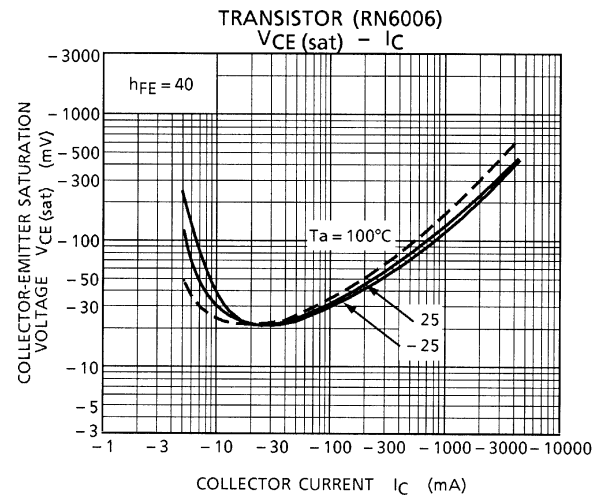
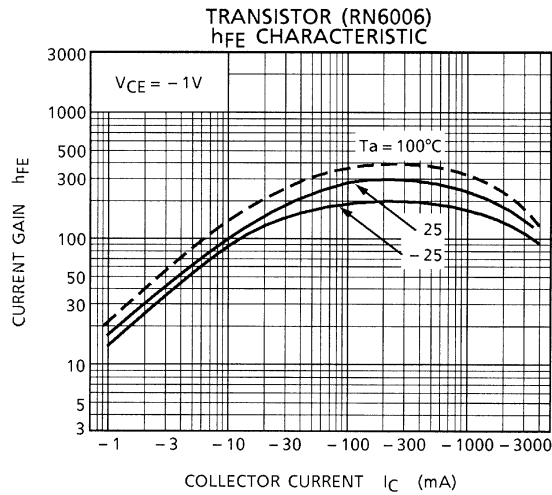
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|------------------------------------|-----------------------|-------------|--------|
| Supply Voltage | V _{CC} | -10 | V |
| Breakdown Voltage | V _{CBO} | -10 | V |
| | V _{CER} | -10 | |
| | V _{EBO} | -6 | |
| Output Current | I _O | -2 | A / ch |
| | I _O (PEAK) | -4 (Note 1) | |
| Base Current | I _B (AVE) | -0.4 | A |
| | I _B (PEAK) | -0.8 | |
| Fly-wheeling Diode Forward Current | I _F | -2 (Note 2) | 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 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 _{FE} (1) | — | V _{CE} = -1 V, I _C = -0.5 A | 160 | — | 600 | — |
| | h _{FE} (2) | | V _{CE} = -1 V, I _C = -1.5 A | 60 | 130 | — | |
| Saturation Voltage | V _{CE} (sat) | — | I _C = -1 A, I _B = -25 mA | — | -0.13 | -0.25 | V |
| | | | I _C = 2 A, I _B = 50 mA | — | -0.25 | -0.50 | |
| Transition Frequency | f _T | — | V _{CE} = -2 V, I _C = -0.5 A | — | 150 | — | MHz |
| Leakage Current | I _{OL} | — | V _{CC} = -10 V | — | 0 | -10 | μA |
| Fly-wheeling Diode Forward Voltage | V _F | — | I _F = -300 mA | — | -0.89 | -1.2 | V |
| | | | I _F = -450 mA, 10 ms | — | -1.60 | — | |
| Base-Emitter Resistor | R _{BE} | — | — | 7 | 10 | 13 | kΩ |
| Base-Emitter Forward Voltage | V _{BE} | — | V _{CE} = -1 V, I _C = -2.0 A | — | -0.84 | -1.5 | V |



PRECAUTIONS for USING

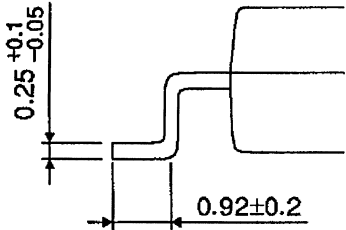
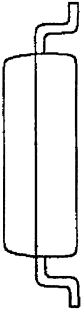
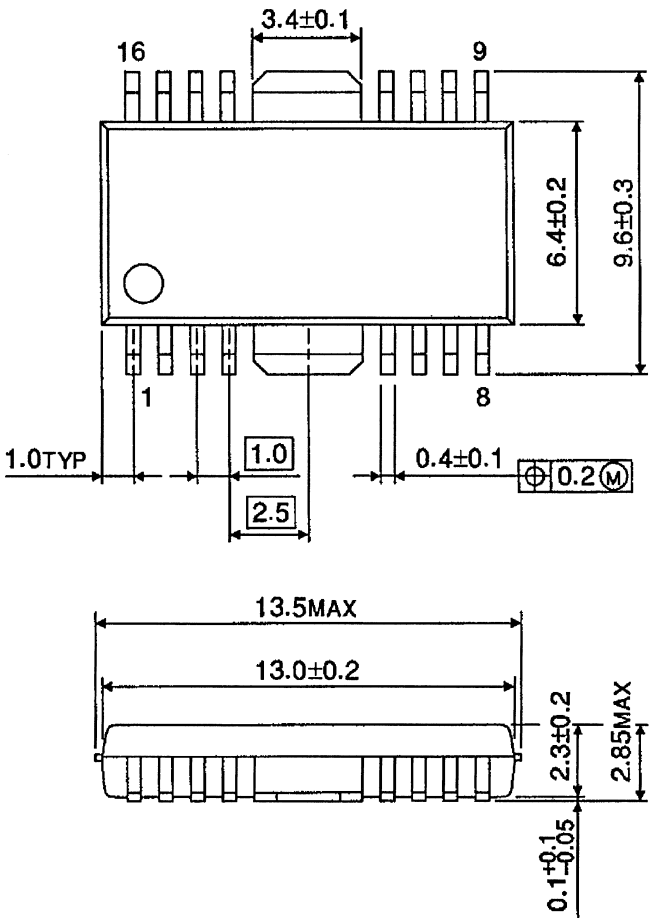
This IC does not integrate protection circuits such as overcurrent and overvoltage protectors. Thus, if excess current or voltage is applied to the IC, the IC may be damaged. Please design the IC so that excess current or voltage will not be applied to the IC.

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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