

TD62M4500F

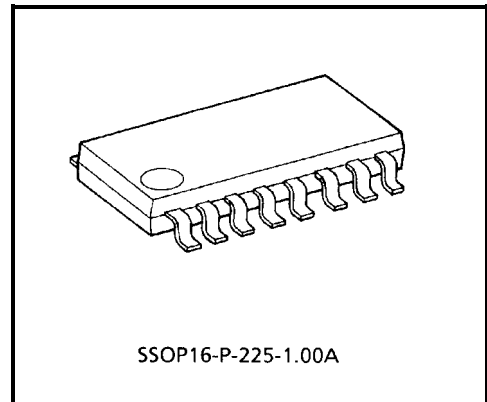
4CH LOW SATURATION VOLTAGE SINK DRIVER

TD62M4500F is Multi Chip IC incorporates 4 low saturation discrete transistors which equipped fly-wheeling diodes and bias resistor.

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

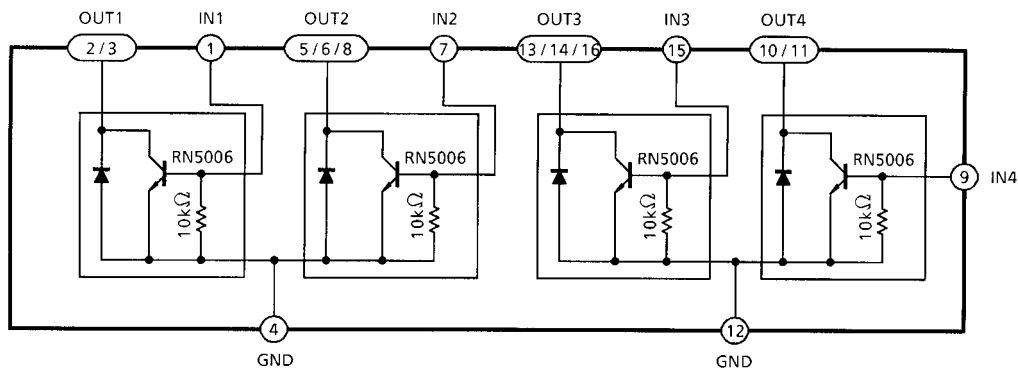
FEATURES

- Suitable for Motor drive circuit and LED display module
- Bias resistor and diodes are equipped : R = 10 kΩ
- Low Saturation Voltage
 $V_{CE(sat)} = 0.16\text{ V (Typ.) at } I_C = 1\text{ A}$
 $V_{CE(sat)} = 0.30\text{ V (Typ.) at } I_C = 2\text{ A}$
- SSOP16 (1 mm pitch) small package sealed

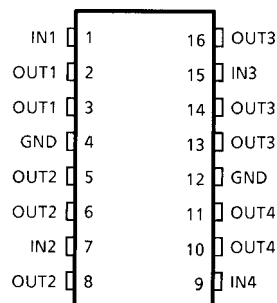


Weight: 0.14 g (Typ.)

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



MAXIMUM RATINGS (Ta = 25°C)

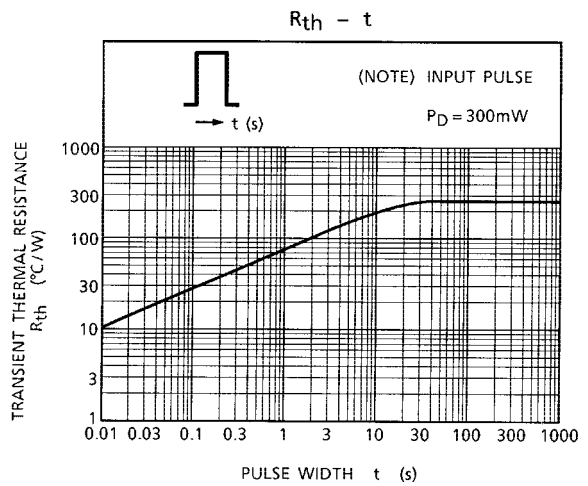
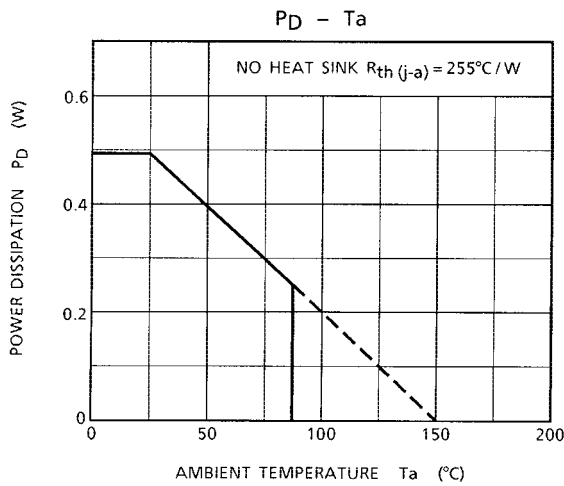
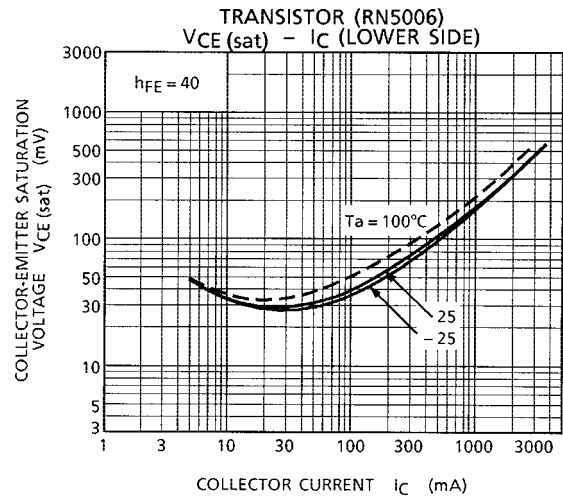
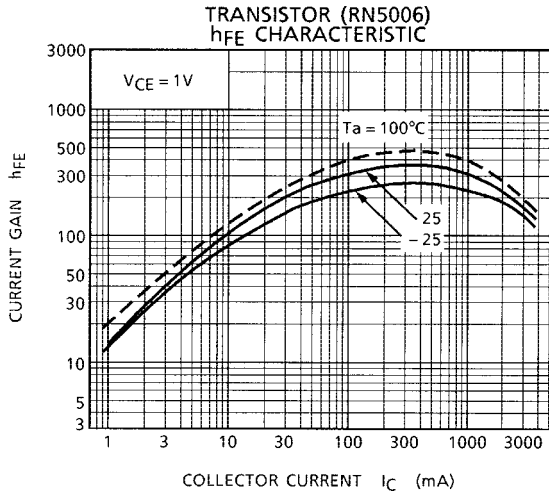
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	10	V
Breakdown Voltage	V _{CB0}	10	V
	V _{CER}	10	
	V _{EBO}	6	
Output Current	I _O (AVE)	2	A
	I _O (PRAK)	4 (Note 1)	
Base Current	I _B (AVE)	0.4	A
	I _B (PRAK)	0.8	
Fly-wheeling Diode Forward Current	I _F	2 (Note 2)	A
Power Dissipation	P _D	490	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	—	0.16	0.32	V
			I _C = 2 A, I _B = 50 mA	—	0.30	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 Current	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.

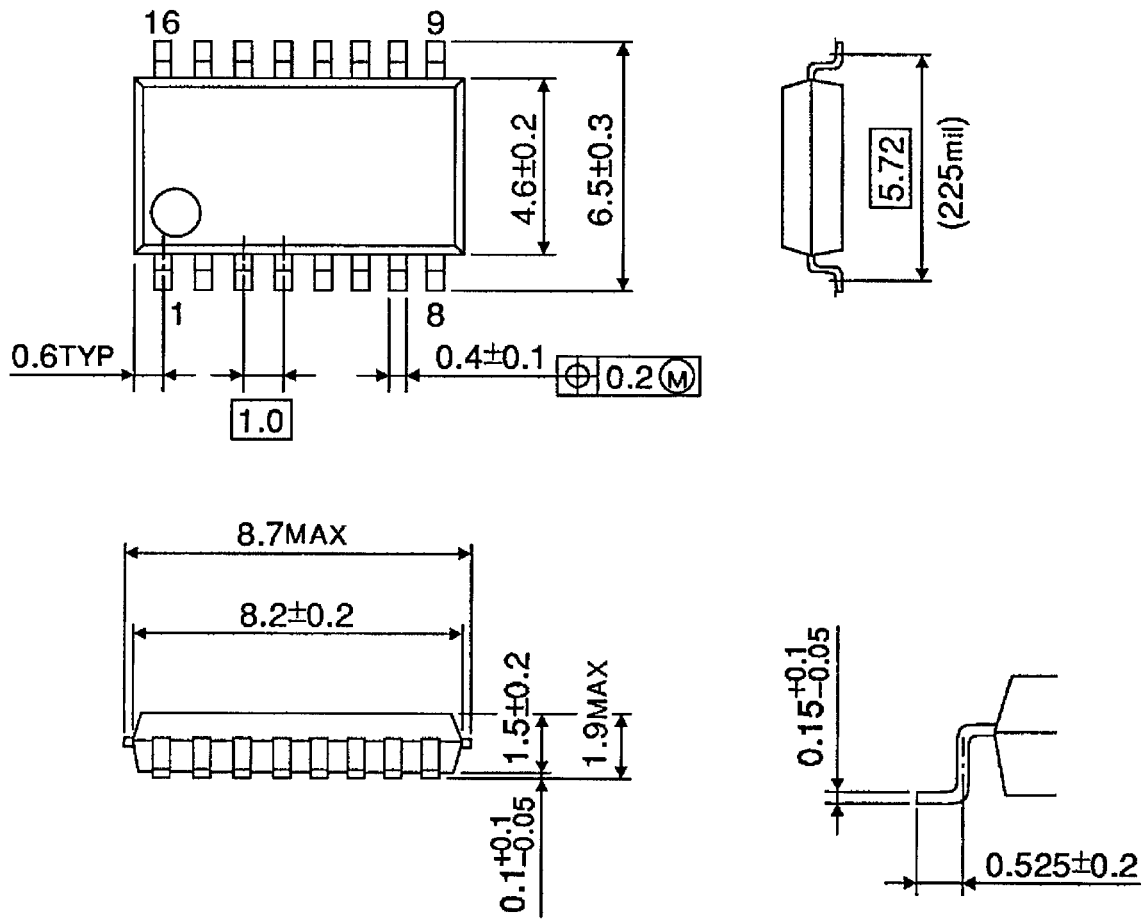
Thus, if excess current or voltage is applied to the IC, the IC may be damaged. Please design the IC so that excess current or voltage will not be applied to the IC.

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

SSOP16-P-225-1.00A

Unit: mm



Weight: 0.14 g (Typ.)

RESTRICTIONS ON PRODUCT USE

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