

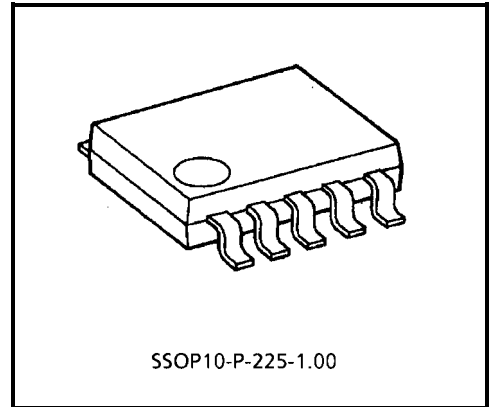
TD62M3600F

3CH LOW SATURATION VOLTAGE SOURCE DRIVER

TD62M3600F is multi chip driver IC incorporates 3 low saturation voltage discrete PNP transistors which equipped bias resistor and fly-wheeling diode.

FEATURES

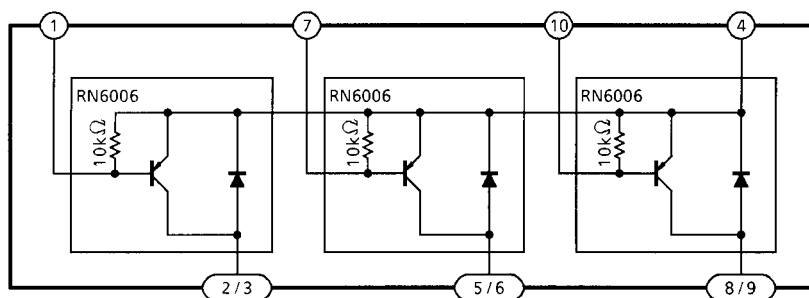
- Built-in fly-wheeling diode
- Built-in bias resistor : R = 10 kΩ (Typ.)
- SSOP10 (1 mm pitch) small package sealed
- Low saturation voltage
 $V_{CE(sat)} = 0.16\text{ V (Typ.) at } I_O = -1\text{ A}$
 $V_{CE(sat)} = 0.28\text{ V (Typ.) at } I_O = -2\text{ A}$



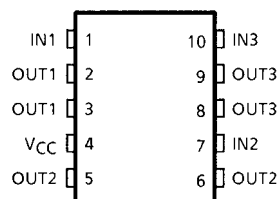
SSOP10-P-225-1.00

Weight: 0.10 g (Typ.)

BLOCK DIAGRAM



PIN CONNECTION



MAXIMUM RATINGS (Ta = 25°C)

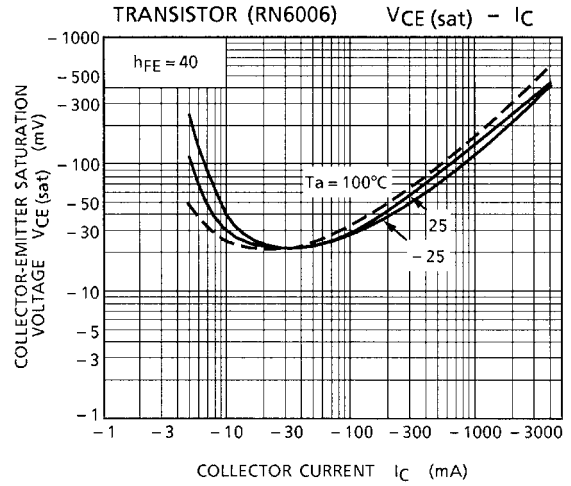
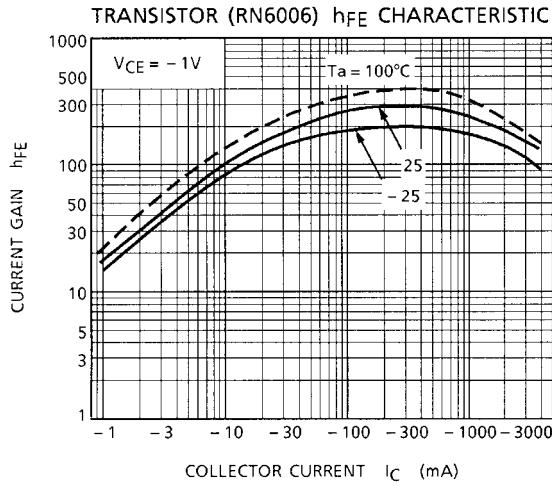
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	-10	V
Collector-Base Voltage	V _{CBO}	-10	V
Collector-Emitter Voltage	V _{CEO}	-10	V
Emitter-Base Voltage	V _{EBO}	-6	V
Output Transistor Current	I _O	-2	A / ch
	I _O (PEAK)	-4 (Note 1)	
Base Current	I _B	-0.4	A
	I _B (PEAK)	-0.8 (Note 1)	
Diode Forward Current	I _F	-2 (Note 2)	A
Power Dissipation	P _D	590	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 = 2.0 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
Diode Forward Voltage	V _F	—	I _F = 300 mA	—	0.89	1.2	V
			I _F = 450 mA, 10 ms	—	1.60	—	
Base-Emitter Resistance	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.

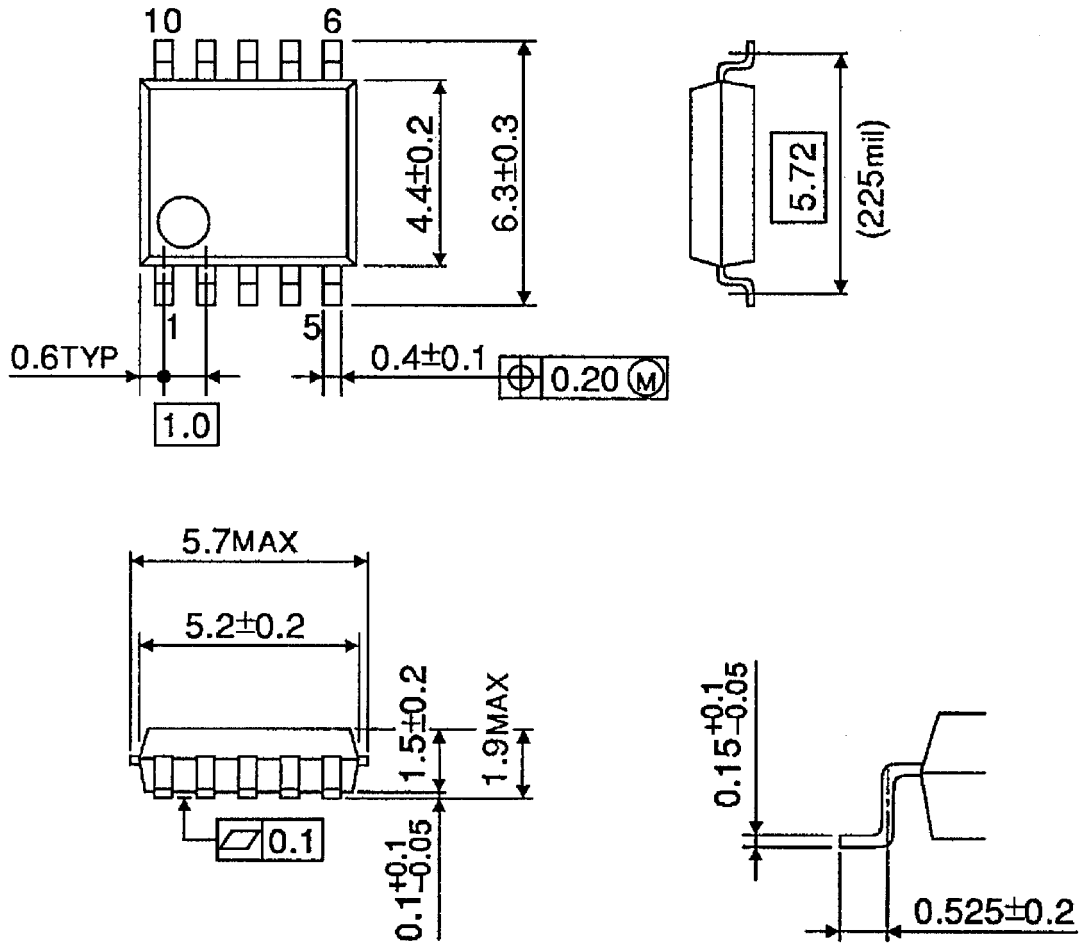
Thus, if excess current or voltage is applied to the IC, the IC may be damaged. Please design the IC so that excess current or voltage will not be applied to the IC.

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

PACKAGE DIMENSIONS

SSOP10-P-225-1.00

Unit: mm



Weight: 0.10 g (Typ.)

RESTRICTIONS ON PRODUCT USE

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