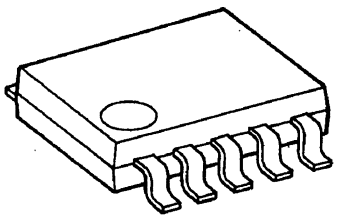
TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

TD62M3601F

3CH LOW SATURATION VOLTAGE SOURCE DRIVER

TD62M3601F is multi chip IC incorporates 3 low saturation voltage discrete transistor (PNP).



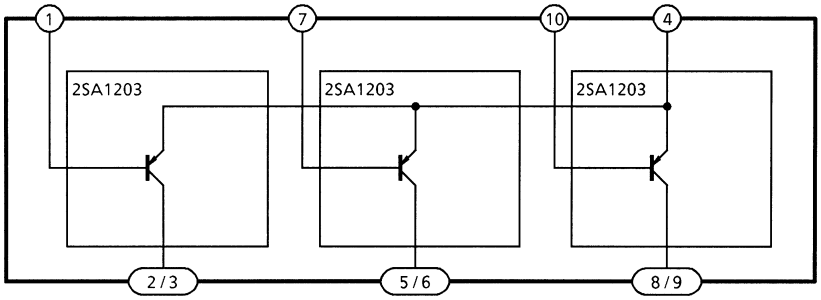
SSOP10-P-225-1.00

Weight: 0.10 g (Typ.)

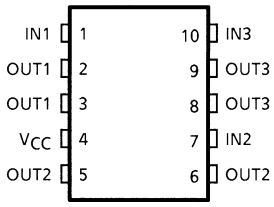
FEATURES

- Suitable for high efficiency motor drive circuit
- SSOP10 (1 mm pitch) small package sealed
- High output currentage
  $I_{OUT\ (AVE.)} = -1.5$ A
  $I_{OUT\ (PEAK)} = -3.0$ A

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



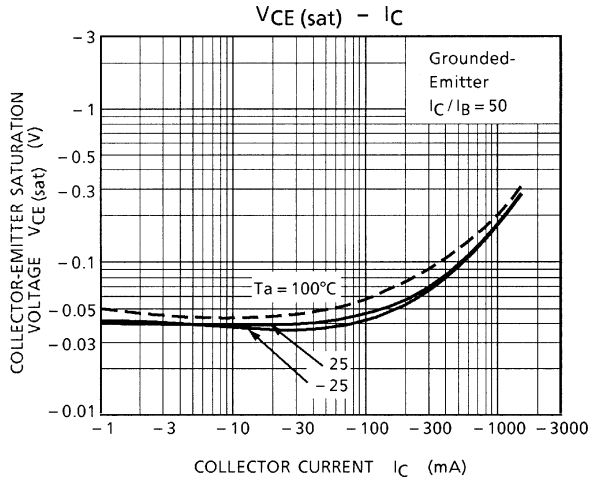
MAXIMUM RATINGS (Ta = 25°C)

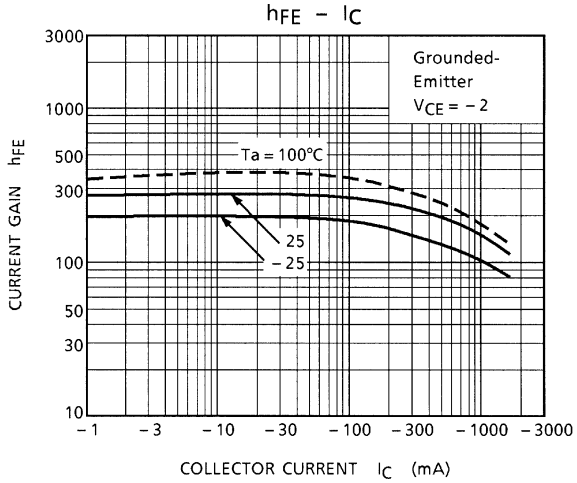
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	−30	V
Collector−Base Voltage	V_{CBO}	−30	V
Collector−Emitter Voltage	V_{CEO}	−30	V
Emitter−Base Voltage	V_{EBO}	−5	V
Output Transistor Current	I_O	−1.5	A / ch
	$I_{O\ (PEAK)}$	−3.0 (Note)	
Base Current	I_B	−0.3	A
Power Dissipation	P_D	590	mW
Junction Temperature	T_j	150	°C
Operating Temperature	T_{opr}	−40~85	°C
Storage Temperature	T_{stg}	−55~150	°C

Note: T = 10 ms Max. and maximum duty is less than 30%.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIR−CUIT	TEST CONDITION	MIN	TYP.	MAX	UNIT
Current Gain	$h_{FE\ (1)}$	—	V_{CE} = −2 V, I_C = −0.5 A	160	—	320	—
	$h_{FE\ (2)}$	—	V_{CE} = −2 V, I_C = −1.5 A	50	100	—	
Saturation Voltage	$V_{CE\ (sat)}$	—	I_C = −0.5 A, I_B = −10 mA	—	−0.1	−0.50	V
			I_C = −1.5 A, I_B = −30 mA	—	—	−2.0	
Transition Frequency	f_T	—	V_{CE} = −2 V, I_C = −0.5 A	—	120	—	MHz
Leakage Current	I_{OL}	—	V_{CC} = −30 V	—	0	−5	μA
Base−Emitter Forward Voltage	V_{BE}	—	V_{CE} = −2 V, I_C = −0.5 A	—	—	−1.0	V



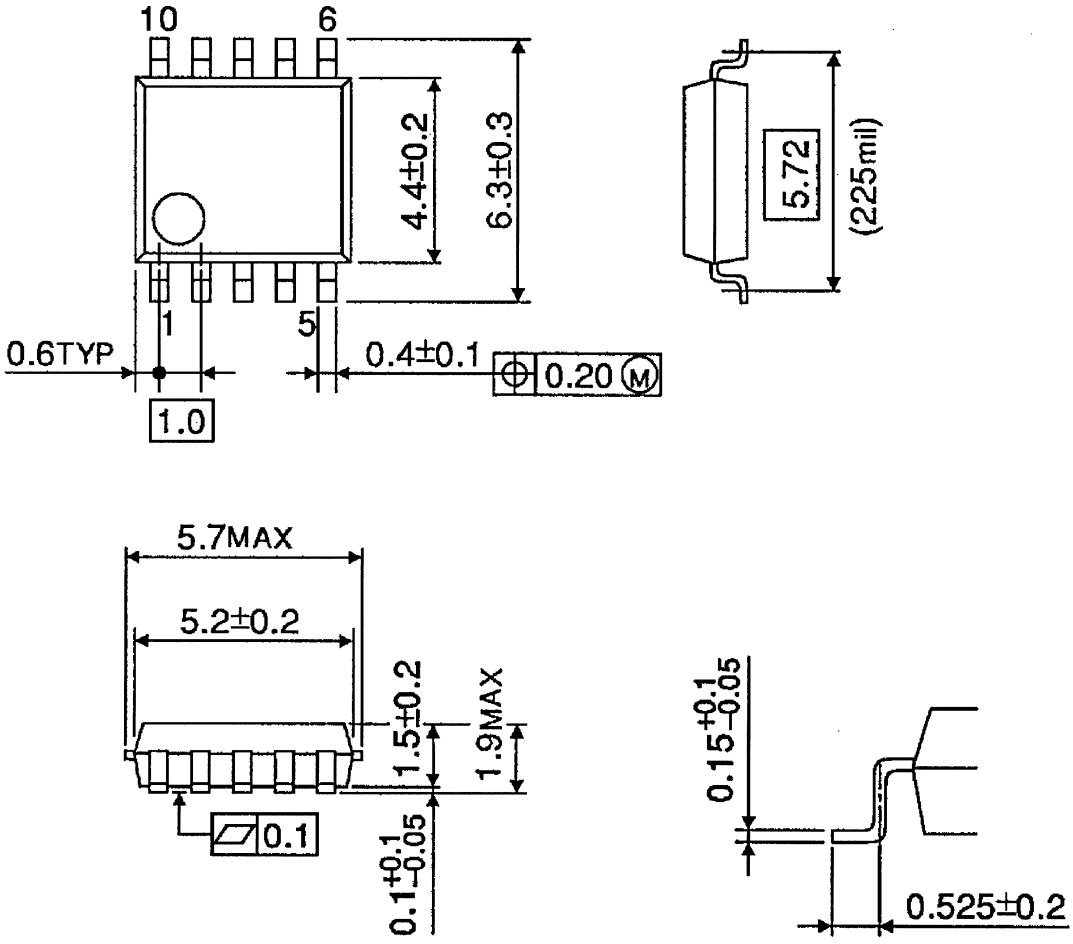


PRECAUTIONS for USING

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.)

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