

TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

TD62M4501F

4CH LOW SATURATION VOLTAGE SINK DRIVER

TD62M4501F is Multi Chip IC incorporates 4 low saturation discrete (2SC3420) transistors. This IC is suitable for a battery use motor drive and LED display module applications.

FEATURES

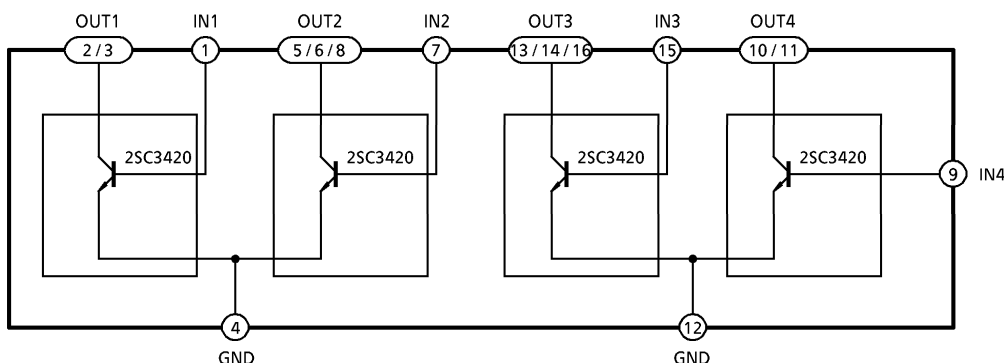
- Suitable for Motor drive circuit and LED display module
- External Bias resistor
- Low Saturation Voltage

$$V_{CE(sat)} = 0.12V \text{ (Typ.) at } I_C = 1A$$

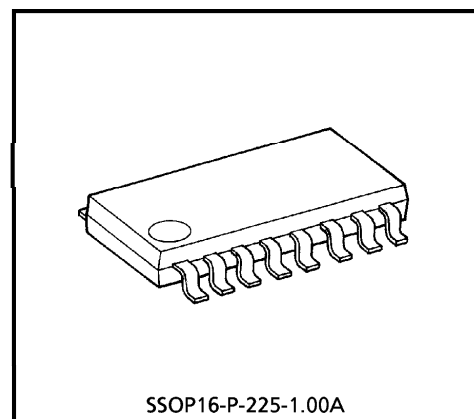
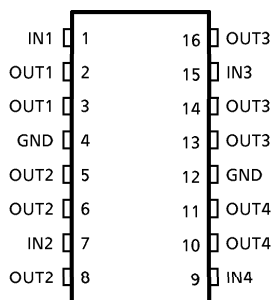
$$V_{CE(sat)} = 0.25V \text{ (Typ.) at } I_C = 2A$$

- SSOP16 1mm pitch small package sealed

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



Weight : 0.14g (Typ.)

961001EBA2

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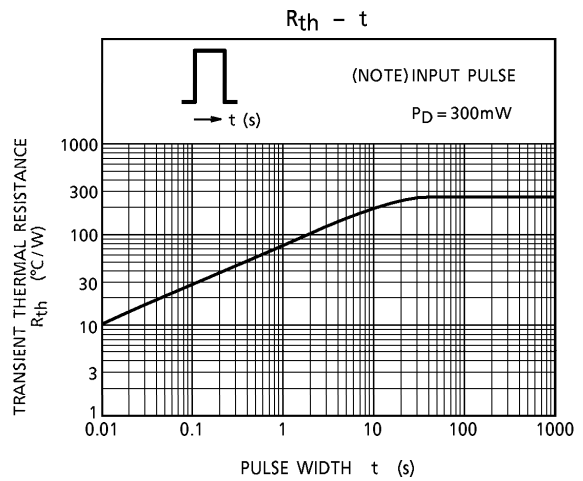
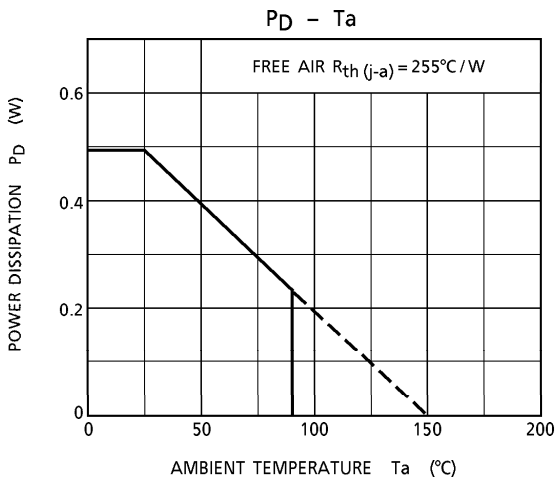
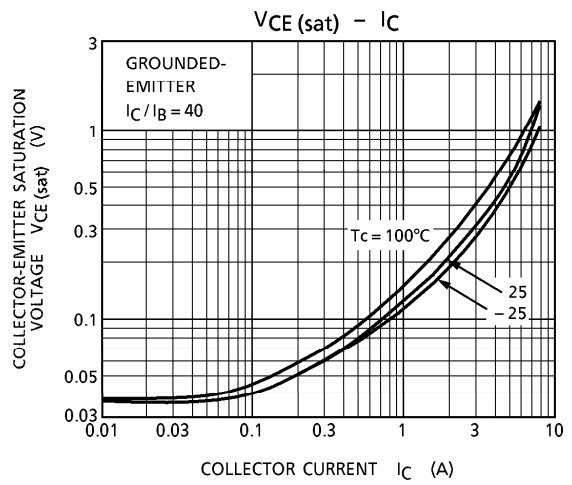
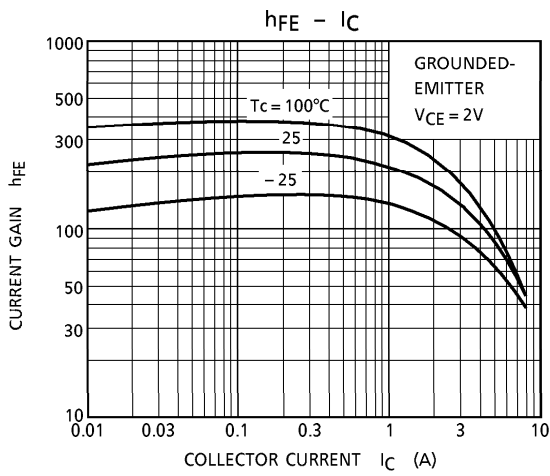
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	20	V
Breakdown Voltage	V _{CB0}	20	V
	V _{CEO}	20	
	V _{EBO}	8	
Output Current	I _O (AVE)	2	A
	I _O (PEAK)	(Note) 4	
Base Current	I _B	1	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) T = 10ms 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} = 2V, I _C = 0.5A	140	—	600	—
	h _{FE} (2)	—	V _{CE} = 2V, I _C = 2.0A	70	140	—	
Saturation Voltage	V _{CE} (sat)	—	I _C = 1A, I _B = 25mA	—	0.12	0.25	V
			I _C = 2A, I _B = 50mA	—	0.25	0.50	
Transition Frequency	f _T	—	V _{CE} = 2V, I _C = 0.5A	—	100	—	MHz
Leakage Current	I _{OL}	—	V _{CC} = 20V	—	0	10	μA
Base-Emitter Forward Voltage	V _{BE}	—	V _{CE} = 2V, I _C = 2.0A	—	0.84	1.5	V

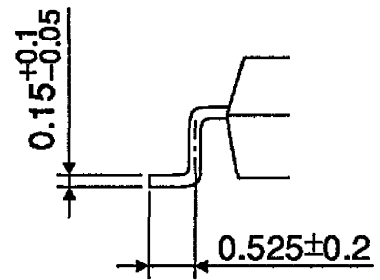
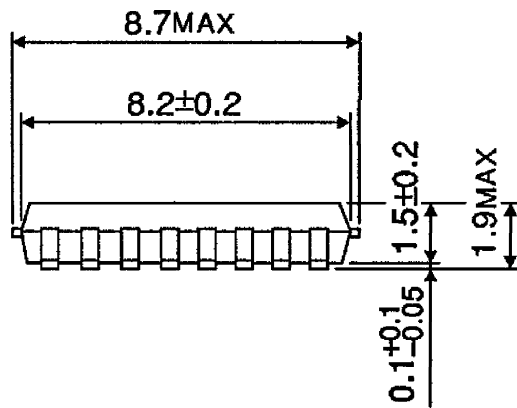
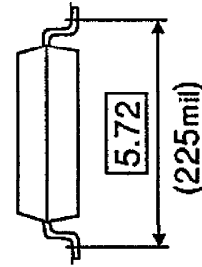
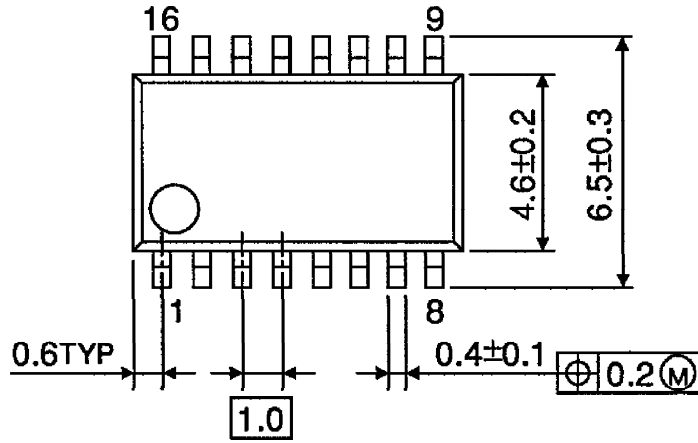


PRECAUTIONS for USING

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.

OUTLINE DRAWING
SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)