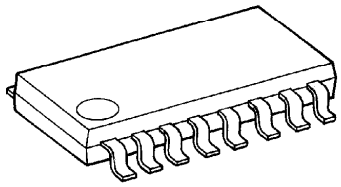
TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI CHIP

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.



SSOP16-P-225-1.00A

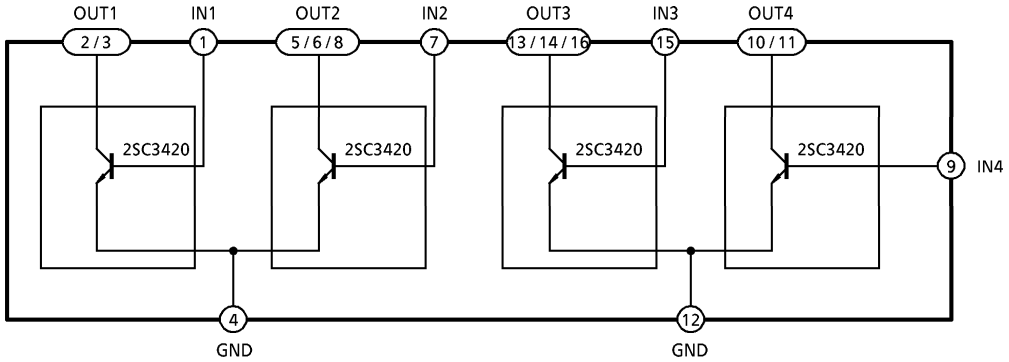
Weight : 0.14g (Typ.)

FEATURES

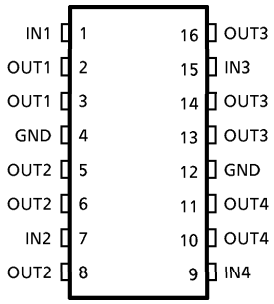
- Suitable for Motor drive circuit and LED display module
- External Bias resistor
- Low Saturation Voltage

  $V_{CE\ (sat)}$ = 0.12V (Typ.) at I_C = 1A
  $V_{CE\ (sat)}$ = 0.25V (Typ.) at I_C = 2A
- SSOP16 1mm pitch small package sealed

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



961001EBA2

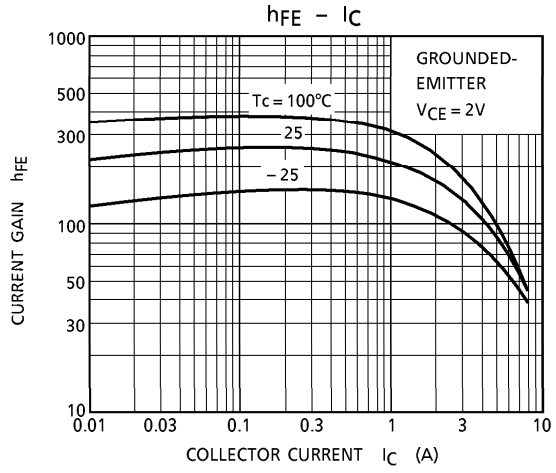
MAXIMUM RATINGS (Ta = 25°C)

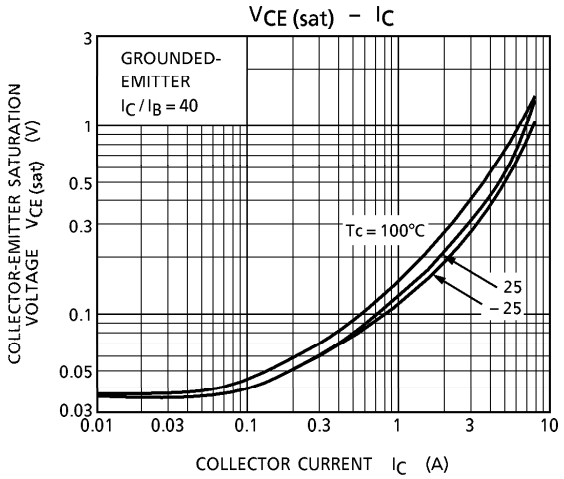
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	20	V
Breakdown Voltage	V_{CBO}	20	V
	V_{CEO}	20	
	V_{EBO}	8	
Output Current	$I_{O\ (AVE)}$	2	A
	$I_{O\ (PEAK)}$	(Note) 4	
Base Current	I_B	1	A
Power Dissipation	P_D	490	mW
Junction Temperature	T_j	150	°C
Operating Temperature	T_{opr}	−40~85	°C
Storage Temperature	T_{stg}	−55~150	°C

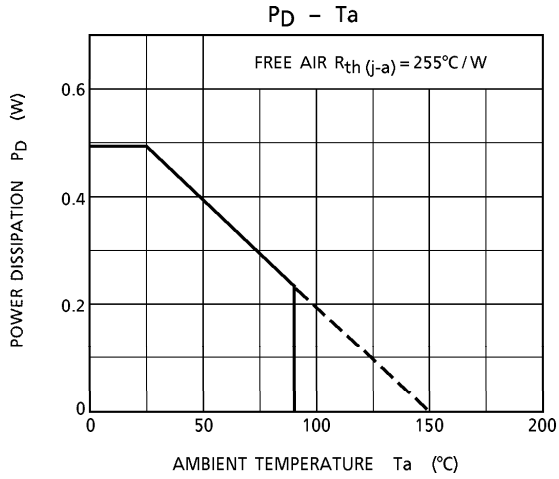
(Note) T = 10ms MAX. and maximum duty is less than 30%.

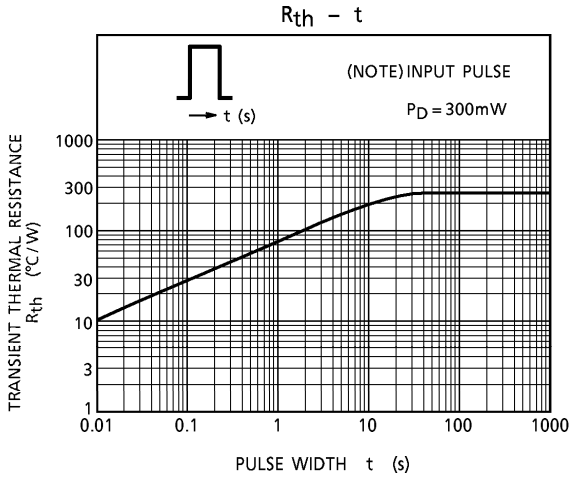
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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









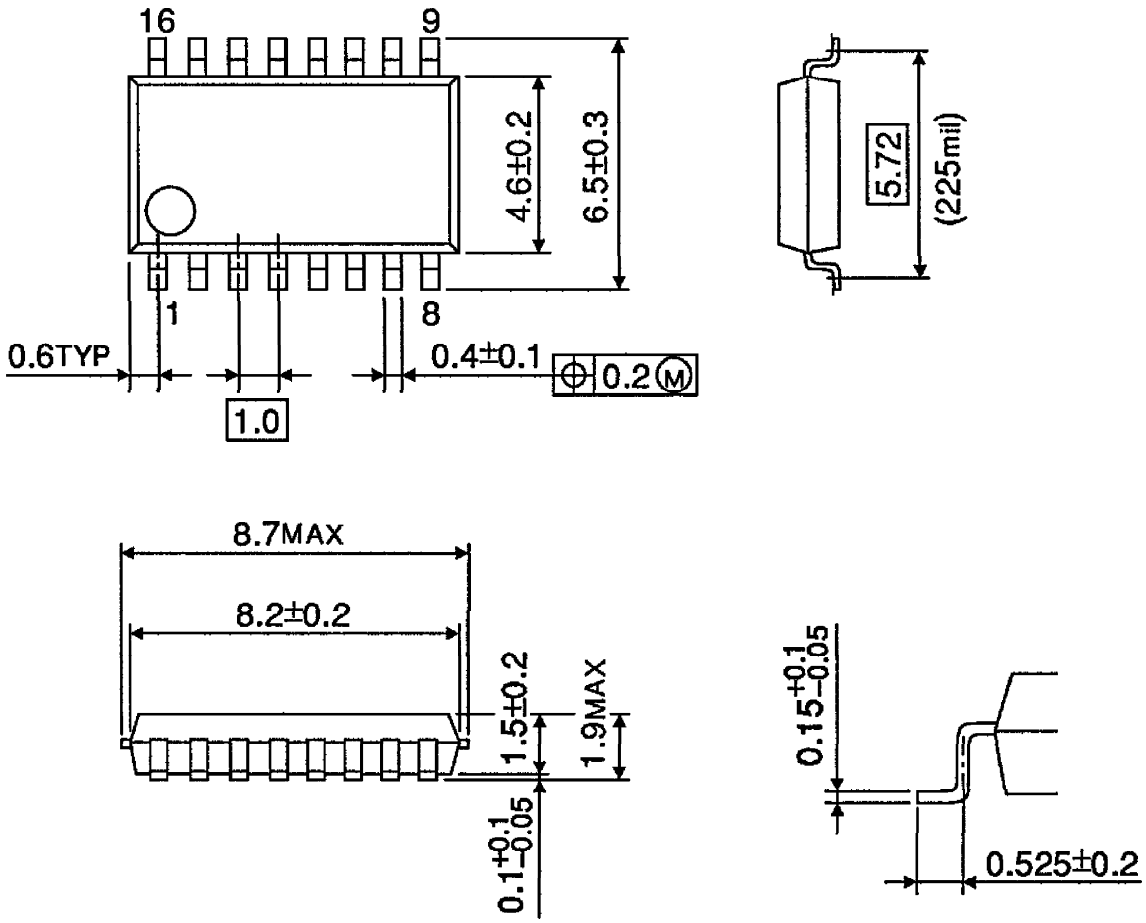
PRECAUTIONS for USING

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



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