

# TA8323F

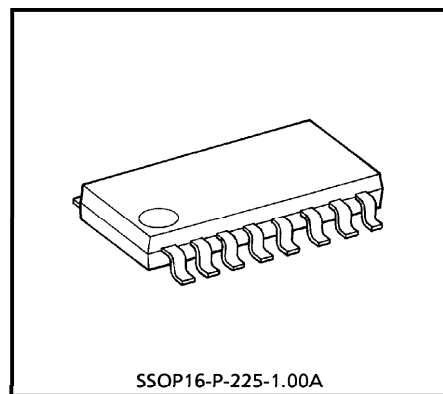
## LOW SATURATION VOLTAGE DRIVER FOR MOTOR

TA8323F is Multi Chip IC incorporates 6 low saturation discrete transistors which equipped bias resistor and free-wheeling diode.

This IC is suitable for a battery use motor drive applications.

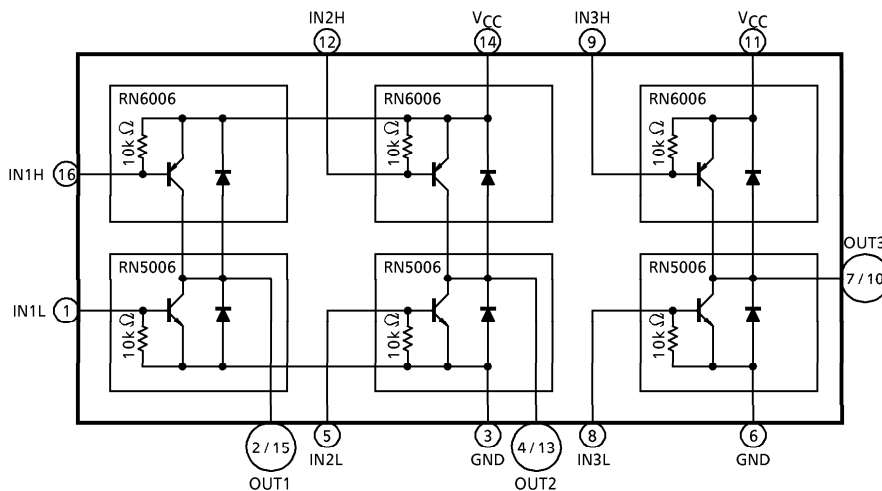
### FEATURES

- Suitable for High Efficiency Motor Drive Circuit.
- Built-in Free-Wheeling Diode
- Built-in Bias Resistor :  $R = 10k\Omega$
- Small Package sealed : SSOP16
- Low Saturation Voltage

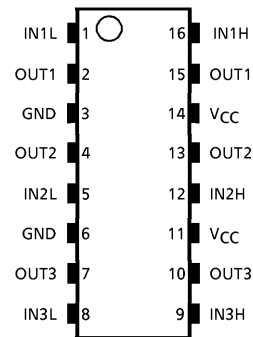


SSOP16-P-225-1.00A  
Weight : 0.14g (Typ.)

### BLOCK DIAGRAM



### PIN CONNECTION



980910EBA2

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## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	10	V
Breakdown Voltage	V <sub>CB0</sub>	10	V
	V <sub>CEO</sub>	10	V
	V <sub>EBO</sub>	6	V
Output Current	I <sub>O</sub>	2	A
	I <sub>O (peak)</sub>	4 (Note 1)	
Base Current	I <sub>B</sub>	± 0.4	A
	I <sub>B (peak)</sub>	± 0.8 (Note 1)	
Diode Forward Current	I <sub>F</sub>	2 (Note 2)	A
Power Dissipation	P <sub>D</sub>	490	mW
Junction Temperature	T <sub>j</sub>	150	°C
Operating Temperature	T <sub>opr</sub>	- 40~85	°C
Storage Temperature	T <sub>stg</sub>	- 55~150	°C

(Note 1) T = 10ms Max. and maximum duty is less than 30%

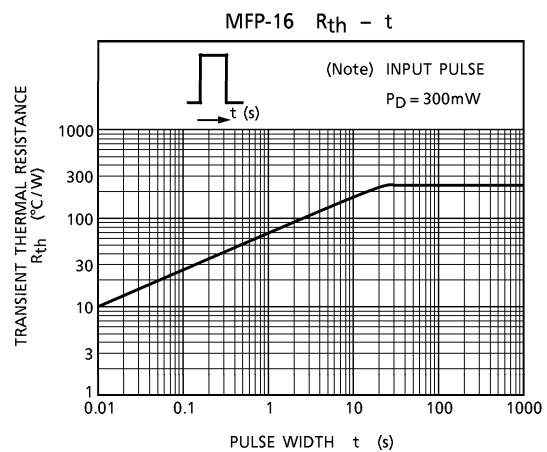
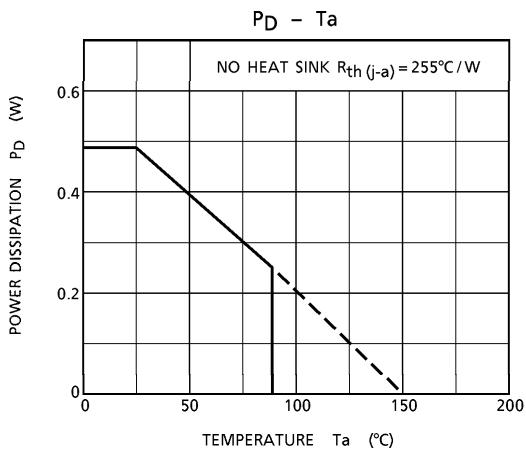
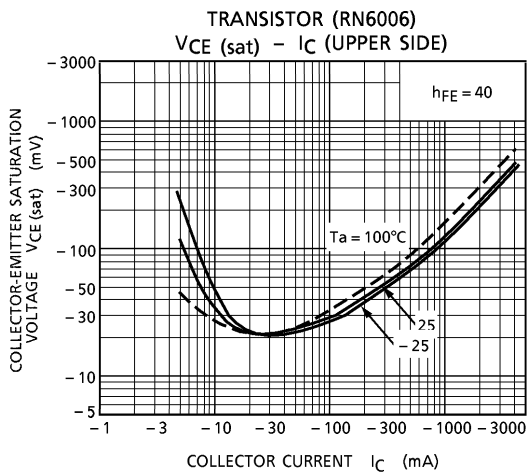
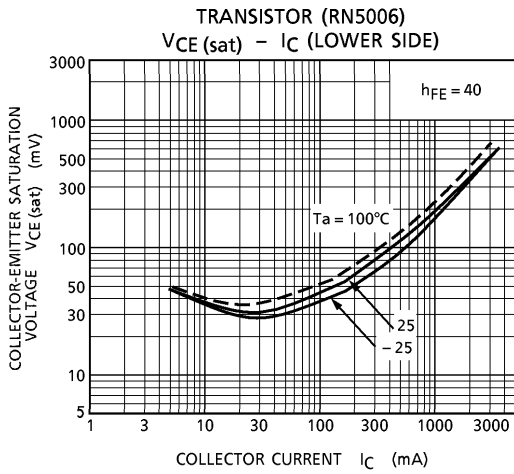
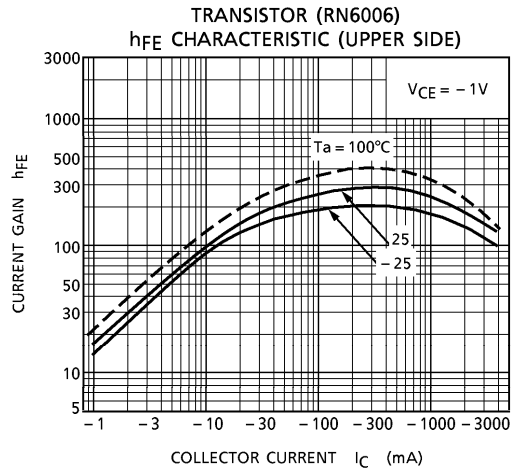
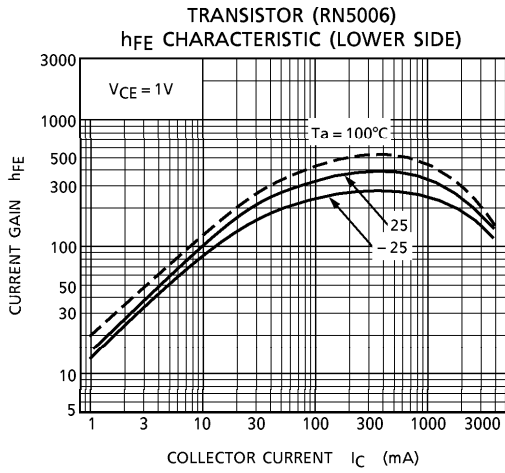
(Note 2) T = 10ms single pulse

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Current Gain		h <sub>FE (1)</sub>	—	V <sub>CE</sub> = 1V, I <sub>C</sub> = 0.5A	160	—	600	
		h <sub>FE (2)</sub>	—	V <sub>CE</sub> = 1V, I <sub>C</sub> = 2.0A	60	130	—	
Saturation Voltage	Upper Side	V <sub>CE (sat)</sub>	—	I <sub>C</sub> = 1A, I <sub>B</sub> = 25mA	—	0.16	0.22	V
				I <sub>C</sub> = 2A, I <sub>B</sub> = 50mA	—	0.28	0.45	
	Lower Side			I <sub>C</sub> = 1A, I <sub>B</sub> = 25mA	—	0.13	0.32	
				I <sub>C</sub> = 2A, I <sub>B</sub> = 50mA	—	0.25	0.45	
				Summing Total	I <sub>C</sub> = 1A, I <sub>B</sub> = 25mA	—	0.29	
I <sub>C</sub> = 2A, I <sub>B</sub> = 50mA	—	0.53	0.85					
Transition Frequency		f <sub>T</sub>	—	V <sub>CE</sub> = 2V, I <sub>C</sub> = 0.5A	—	150	—	MHz
Leakage Current	Upper Side	I <sub>OL</sub>	—	V <sub>CC</sub> = 10V	—	0	5	μA
	Lower Side			V <sub>CC</sub> = 10V	—	0	5	
Diode Forward Voltage	Upper Side	V <sub>F</sub>	—	I <sub>F</sub> = 300mA	—	0.89	1.2	V
				I <sub>F</sub> = 450mA 10ms Pulse measure	—	1.60	—	
	Lower Side			I <sub>F</sub> = 300mA	—	0.89	1.2	
				I <sub>F</sub> = 450mA 10ms Pulse measure	—	1.60	—	
Base-Emitter Resistance		R <sub>BE</sub>	—		7	10	13	kΩ
Base-Emitter Forward Voltage		V <sub>BE (PNP)</sub>	—	V <sub>CE</sub> = -1V, I <sub>C</sub> = 2A	—	0.84	1.5	V
		V <sub>BE (NPN)</sub>	—	V <sub>CE</sub> = 1V, I <sub>C</sub> = 2A	—	0.84	1.5	

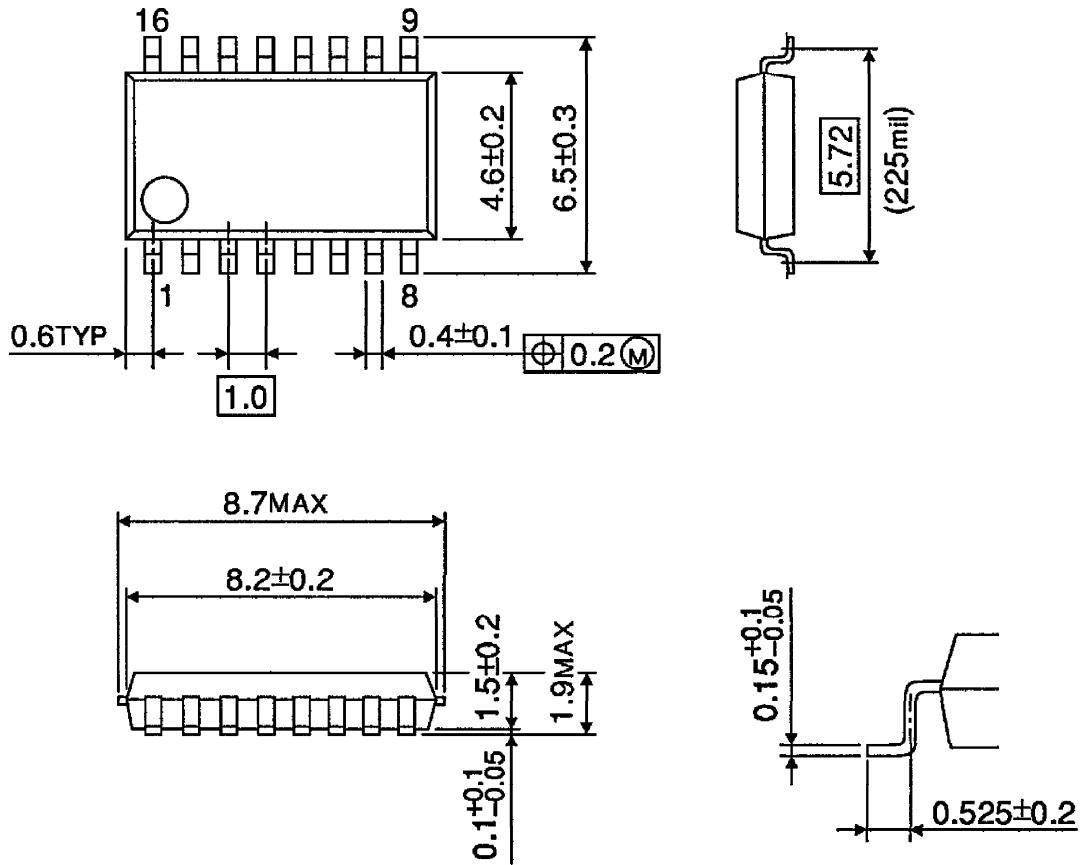
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OUTLINE DRAWING  
SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)