

TA8323F

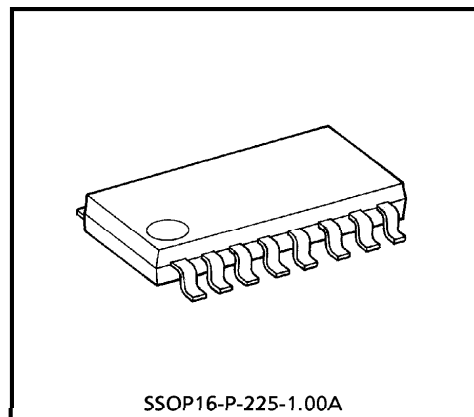
LOW SATURATION VOLTAGE DRIVER FOR MOTOR

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.

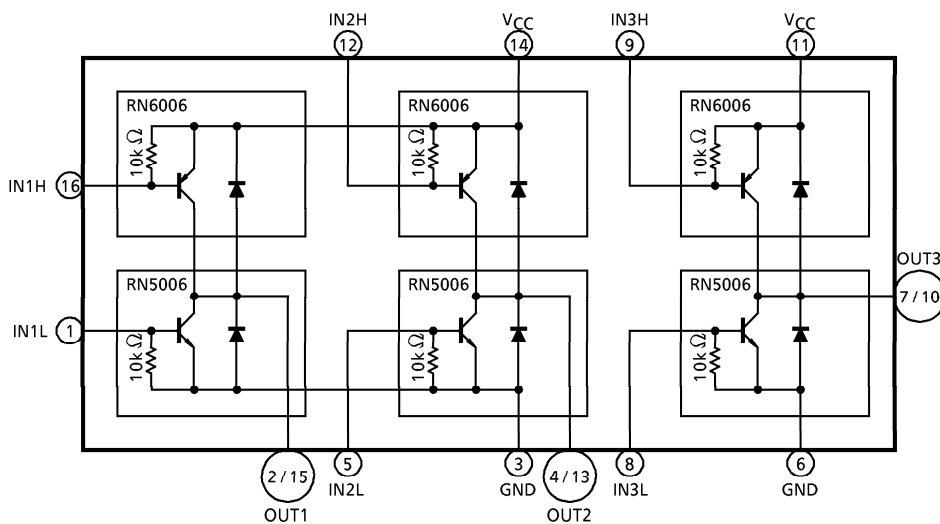
FEATURES

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

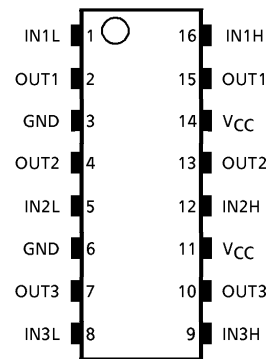


Weight : 0.14g (Typ.)

BLOCK DIAGRAM



PIN CONNECTION



980910EBA2

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MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	10	V
Breakdown Voltage	V _{CB0}	10	V
	V _{CEO}	10	V
	V _{EBO}	6	V
Output Current	I _O	2	A
	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	490	mW
Junction Temperature	T _j	150	°C
Operating Temperature	T _{opr}	-40~85	°C
Storage Temperature	T _{stg}	-55~150	°C

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

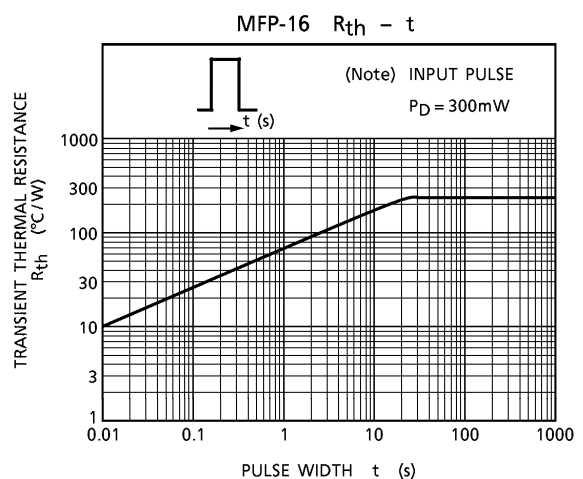
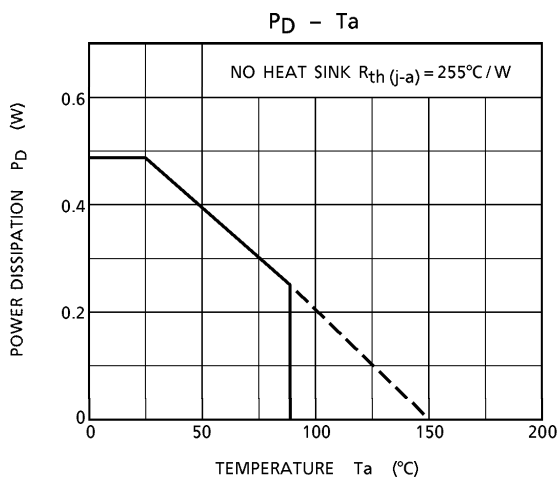
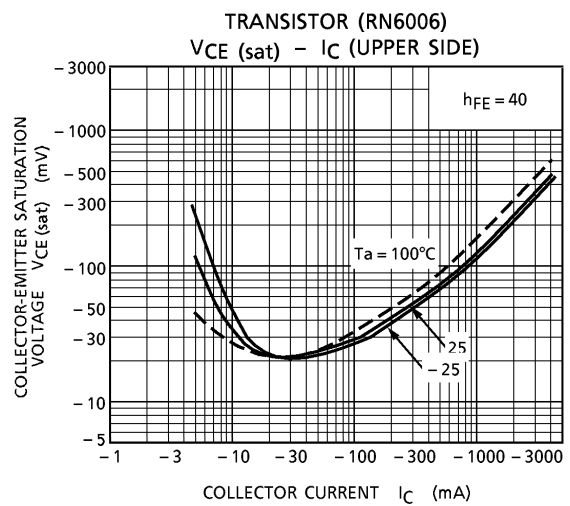
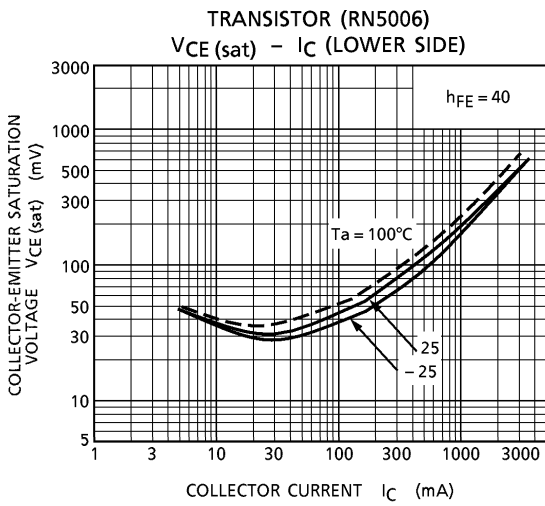
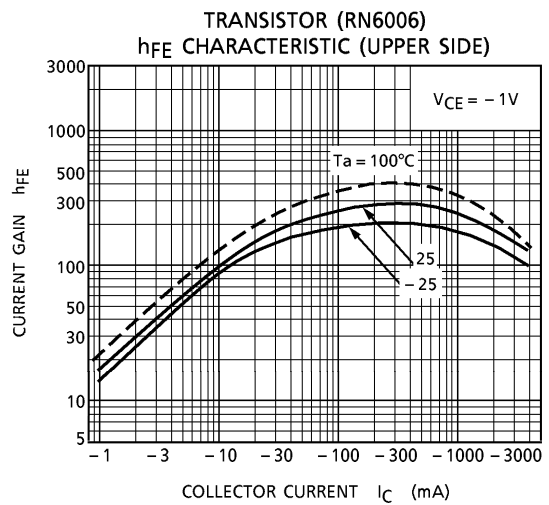
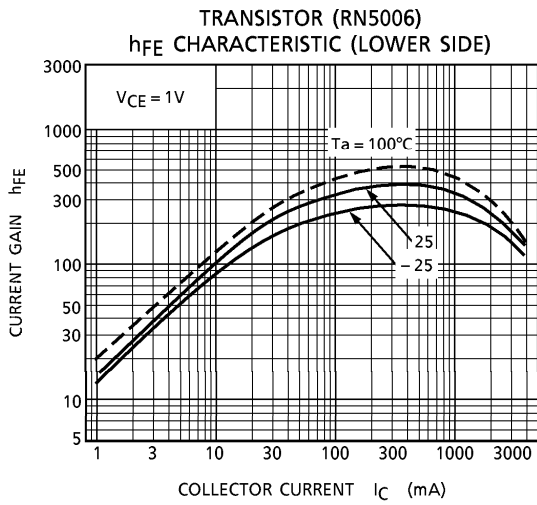
(Note 2) T = 10ms single pulse

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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

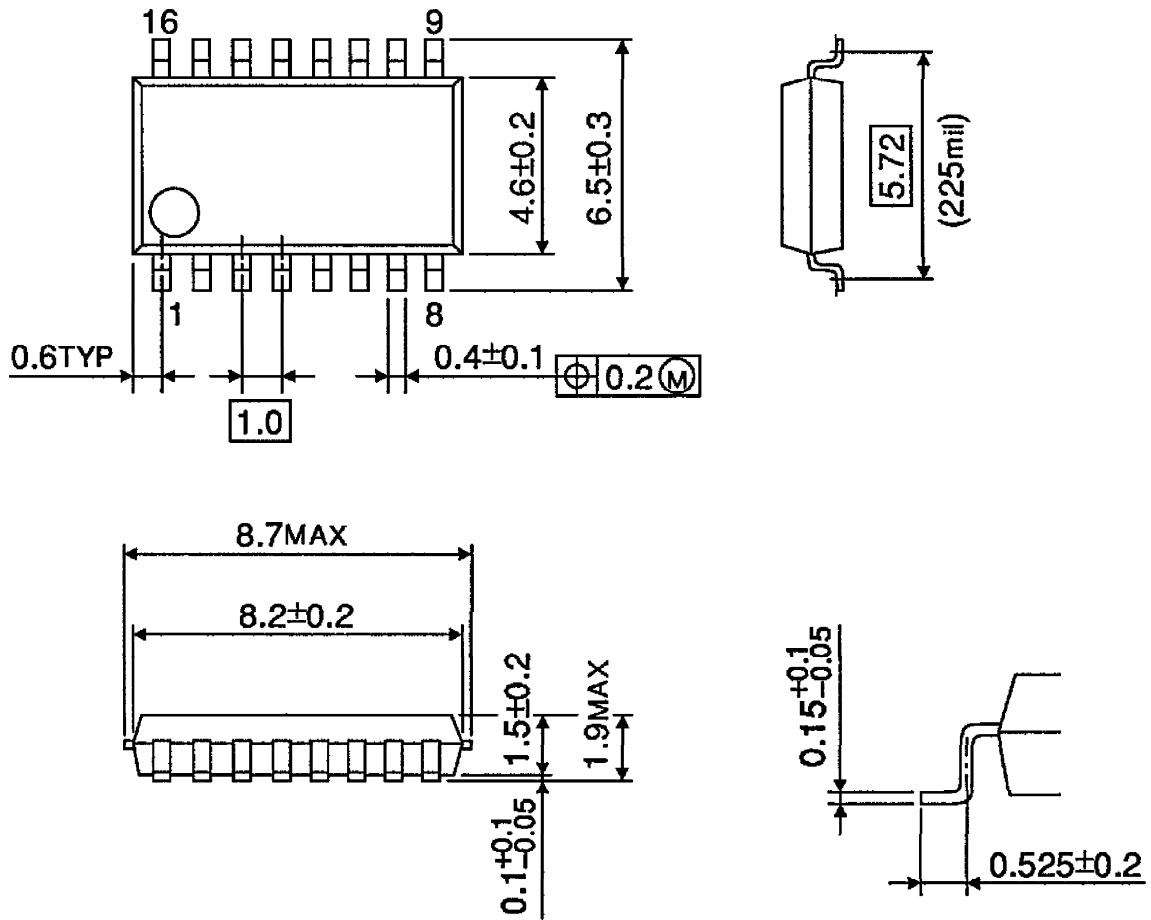
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OUTLINE DRAWING
SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)