

TA8323F

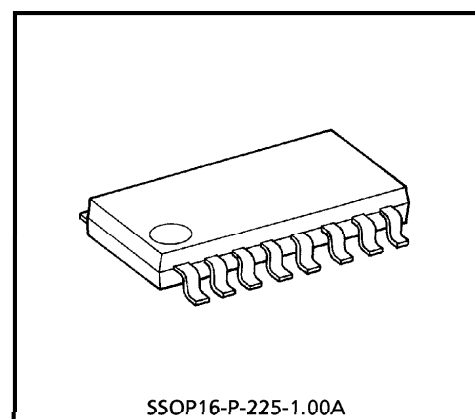
LOW SATURATION VOLTAGE DRIVER FOR MOTOR

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.

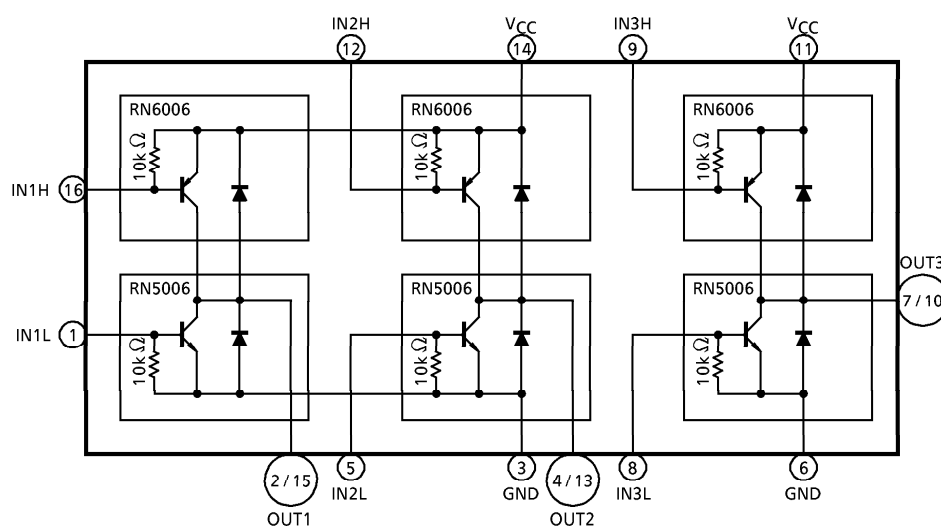
FEATURES

- 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

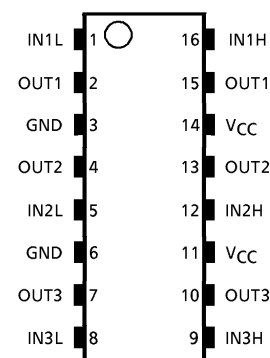


Weight : 0.14g (Typ.)

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
	V _{EB0}	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%

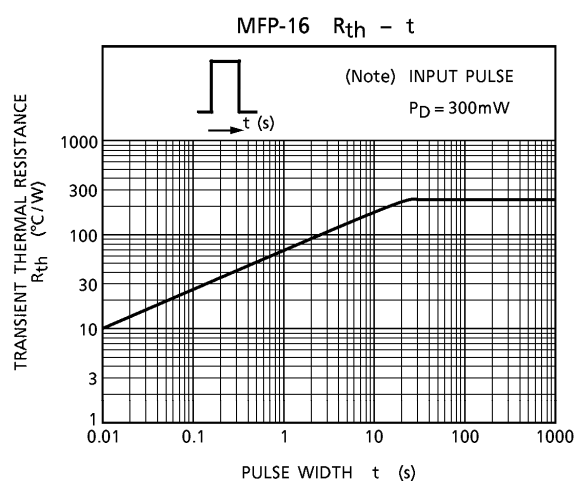
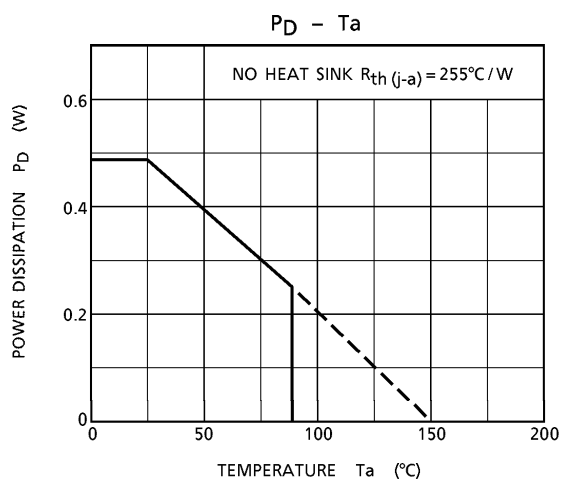
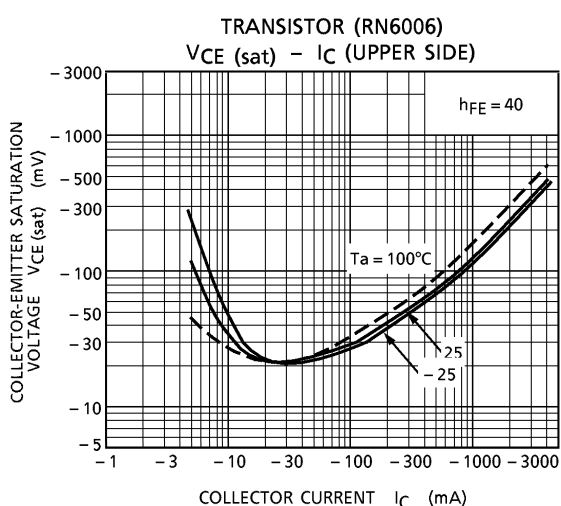
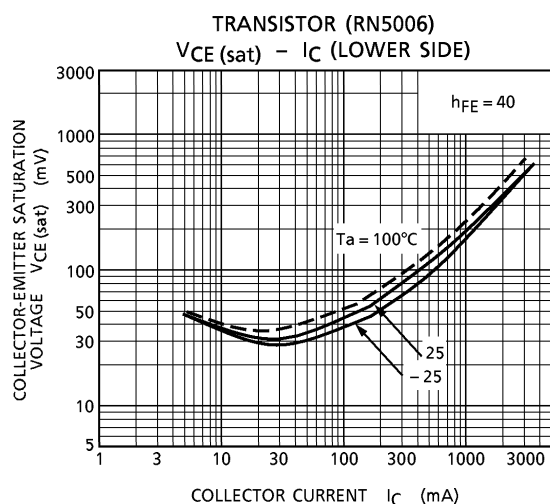
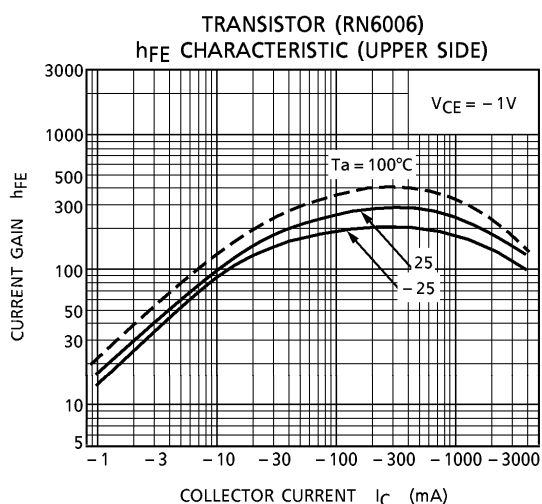
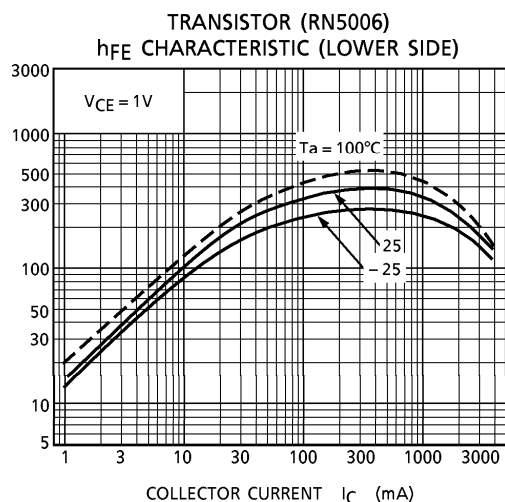
(Note 2) T = 10ms single pulse

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	0.52	
				$I_C = 2A, I_B = 50mA$	—	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	k Ω
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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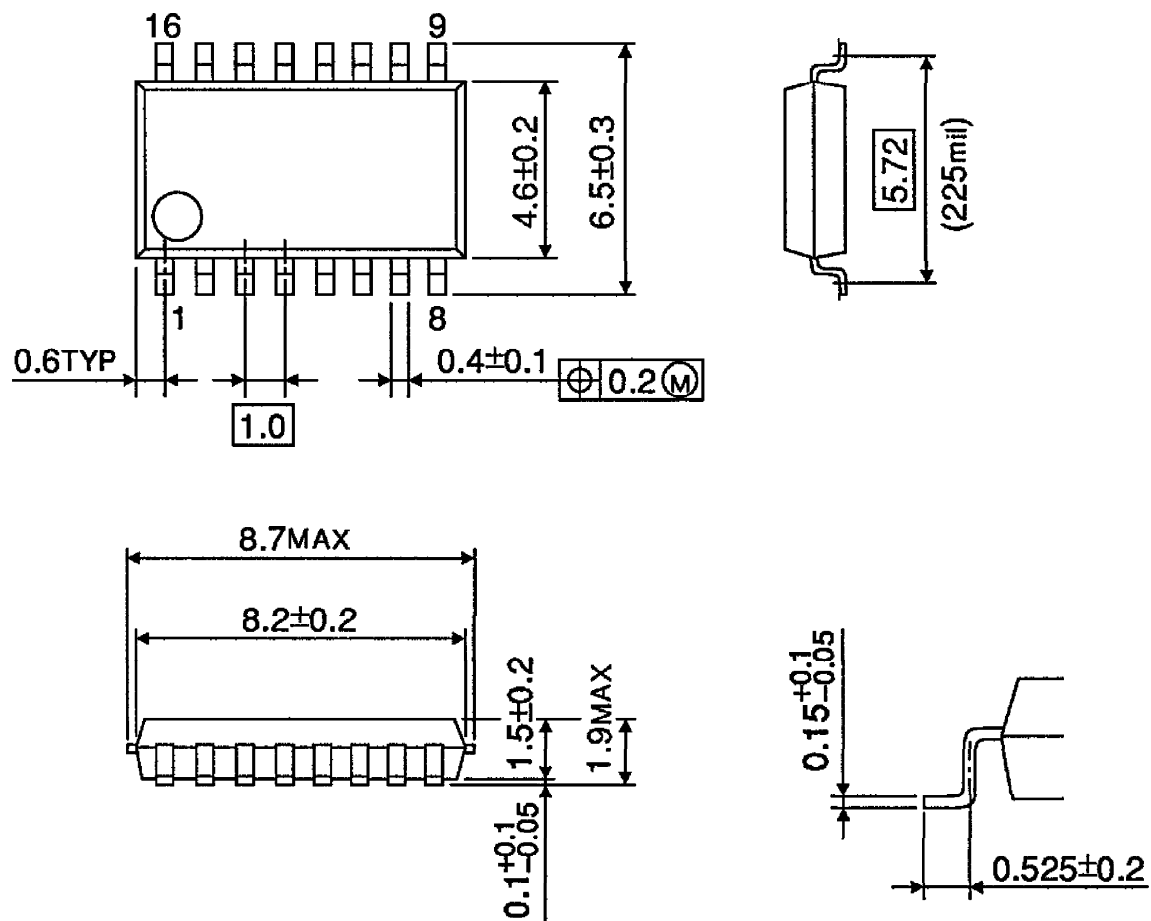
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OUTLINE DRAWING

SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)