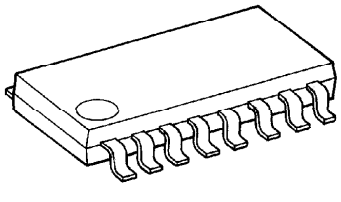
TENTATIVE TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8300F

MOTOR DRIVER FOR CAMERA

TA8300F is Multi Chip IC incorporates 6 low saturation discrete transistors which equipped bias resistor. This IC is suitable for a camera use motor drive applications.



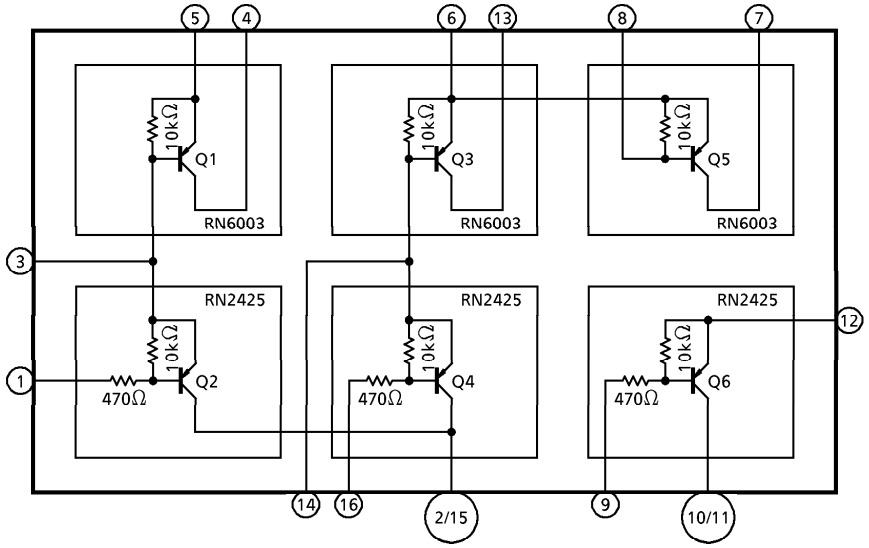
SSOP16-P-225-1.00A

Weight : 0.14g (Typ.)

FEATURES

- Suitable for high efficiency motor drive circuit.
- Built-in Bias Resistor : R = 10kΩ
- Small package sealed : SSOP16
- Low saturation voltage
- H-bridge (only upper side)

BLOCK DIAGRAM



980910EBA2

FUNCTION DESCRIPTION ON EACH TERMINAL

PIN No.	FUNCTION	
1	Tr. Q2	Input Terminal
2	Tr. Q2, Q4	Output Terminal
3	Tr. Q1	Input Terminal
4	Tr. Q1	Output Terminal
5	Tr. Q1	Supply Voltage
6	Tr. Q3, Q5	Supply Voltage
7	Tr. Q5	Output Terminal
8	Tr. Q5	Input Terminal
9	Tr. Q6	Input Terminal
10	Tr. Q6	Output Terminal
11	Tr. Q6	Output Terminal
12	Tr. Q6	Supply Voltage
13	Tr. Q3	Output Terminal
14	Tr. Q3	Input Terminal
15	Tr. Q2, Q4	Output Terminal
16	Tr. Q4	Input Terminal

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	7.0	V
Breakdown Voltage	V_{CBO}	7.0	V
	V_{CEO}	7.0	V
	V_{EBO}	5.0	V
Output Current	I_{OUT}	0.8	A
Base Current	I_B	0.4	A
Power Dissipation	P_D	490	mW
Junction Temperature	T_j	150	°C
Operating Temperature	T_{opr}	−20~60	°C
Storage Temperature	T_{stg}	−55~150	°C

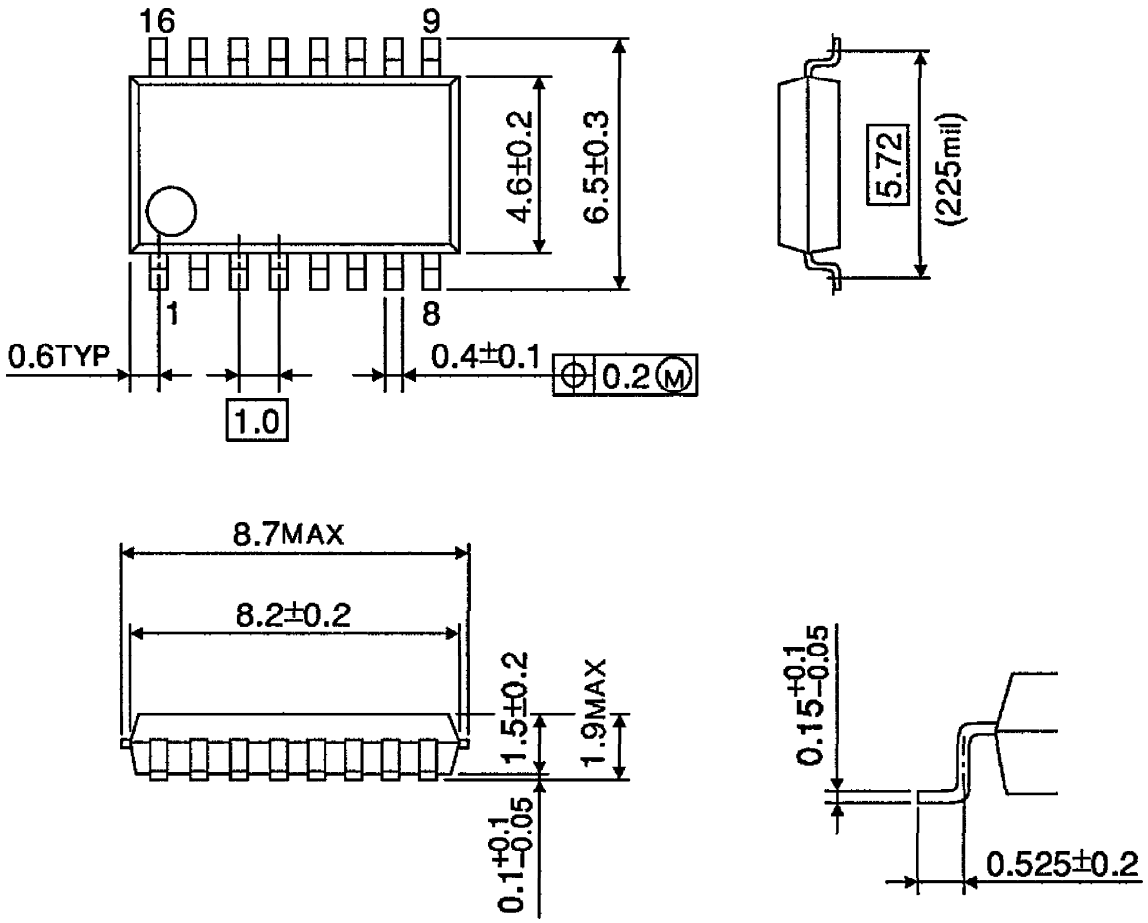
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	MEASURING Tr	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Current Gain	$h_{FE\ 1}$	RN6003	—	V_{CE} = −2V, I_C = −500mA	100	400	—	
	$h_{FE\ 2}$	RN2425	—	V_{CE} = −1V, I_C = −100mA	100	—	—	
Saturation Voltage	$V_{CE\ 1}$	RN6003	—	I_C = −500mA, I_B = −50mA	−0.5	—	—	V
	$V_{CE\ 2}$	RN2425	—	I_C = −50mA, I_B = −1mA	−0.5	—	—	V
Leakage Current	I_{OFF}	RN6003	—	V_{CC} = 7V	—	—	1.0	μA
		RN2425						
Input Resistance	R_1	RN6003	—		7	10	13	kΩ
	R_2	RN2425	—		0.329	0.47	0.61	kΩ
Resistance Ratio	$R_{2'}$	RN2425	—		0.042	—	0.051	
Transition Frequency	f_{T1}	RN6003	—	V_{CE} = −2V, I_C = −500mA	—	120	—	MHz
	f_{T2}	RN2425	—	V_{CE} = −5V, I_C = −100mA	—	200	—	MHz

OUTLINE DRAWING

SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)