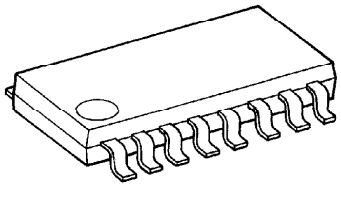
TENTATIVE TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8304F

MOTOR DRIVER FOR CAMERA

TA8304F 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.



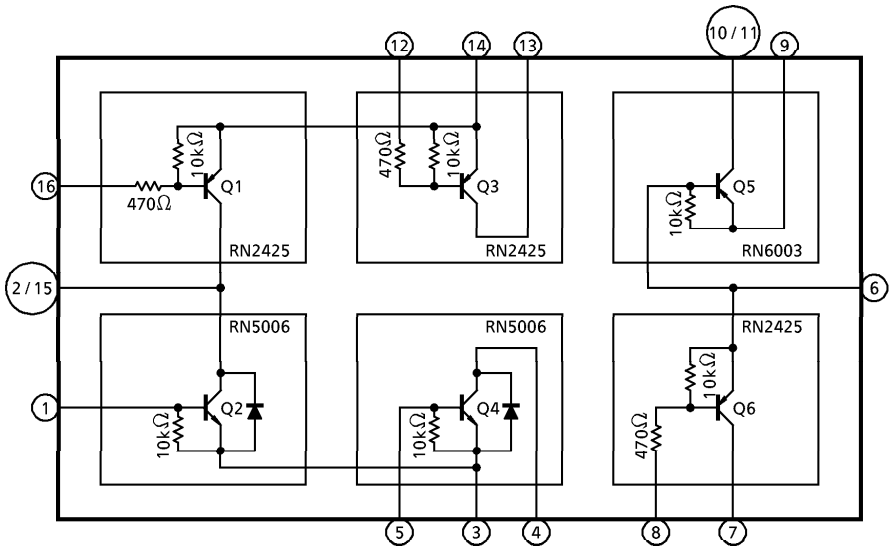
SSOP16-P-225-1.00A

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

BLOCK DIAGRAM



980910EBA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

FUNCTION DESCRIPTION ON EACH TERMINAL

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

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- The information contained herein is subject to change without notice.

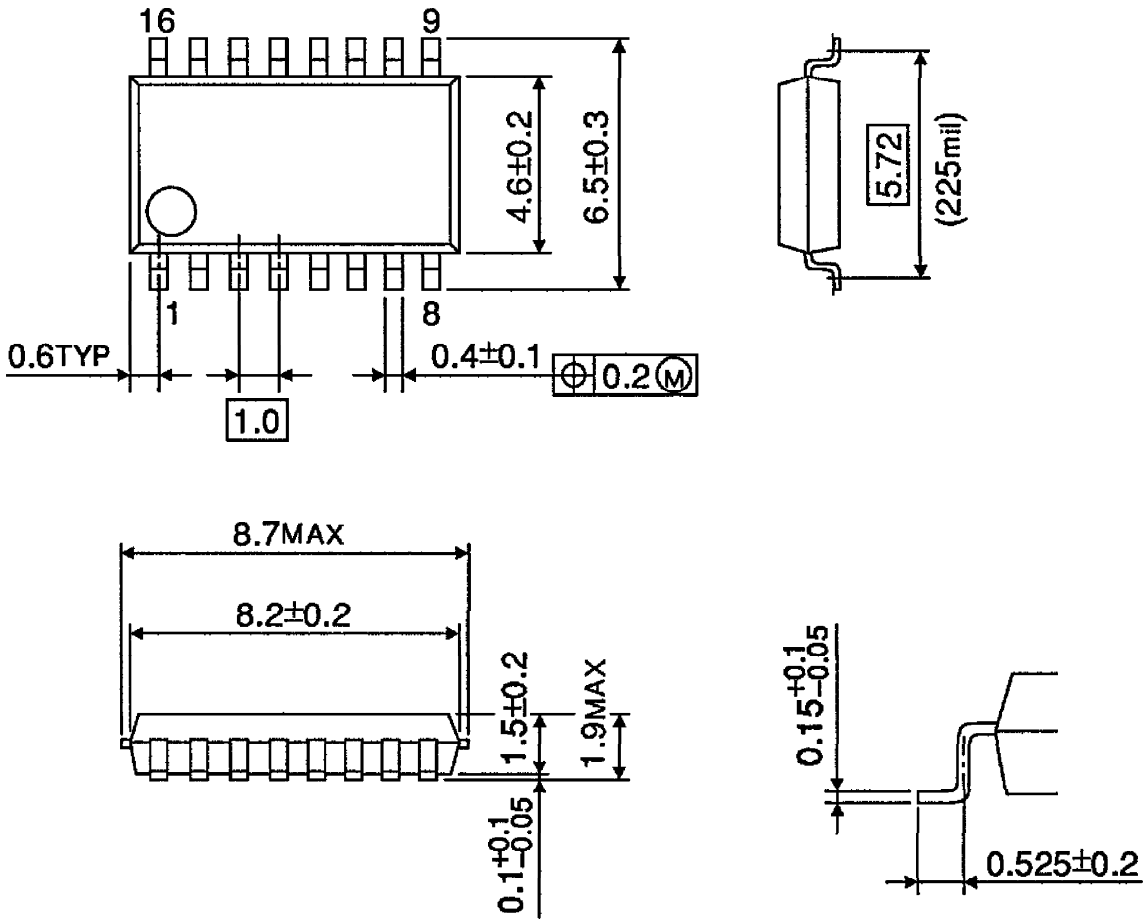
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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	—	—	
	$h_{FE\ 3}$	RN5006	—	V_{CE} = 1V, I_C = 500mA	160	—	600	
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	−0.25	—	—	V
	$V_{CE\ 3}$	RN5006	—	I_C = 600mA, I_B = 20mA	—	—	0.5	V
Leakage Current	I_{OFF}		—	V_{CC} = 7V	—	—	1.0	μA
Input Resistance	R_1	RN6003	—		7	10	13	kΩ
	R_2	RN2425	—		0.329	0.47	0.61	kΩ
Resistance Ratio	R′	RN2425	—		0.042	—	0.051	
Diode Forward Voltage	V_F	RN5006	—	I_F = 300mA	—	—	1.2	V
Transition Frequency	f_{T1}	RN6003	—	V_{CE} = −2V, I_C = −500mA	—	120	—	MHz
	f_{T2}	RN2425	—	V_{CE} = −5V, I_C = −100mA	—	200	—	MHz
	f_{T3}	RN5006	—	V_{CE} = 1V, I_C = 500mA	—	140	—	MHz

OUTLINE DRAWING

SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)