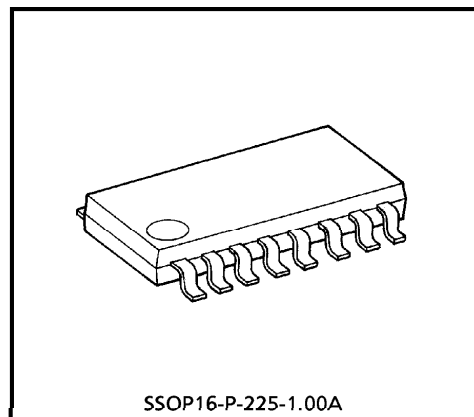


# TA8312F

## MOTOR DRIVER FOR CAMERA

TA8312F is Multi Chip IC incorporates 6 low saturation discrete transistors which equipped bias resistor and Free-Wheeling diode.

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

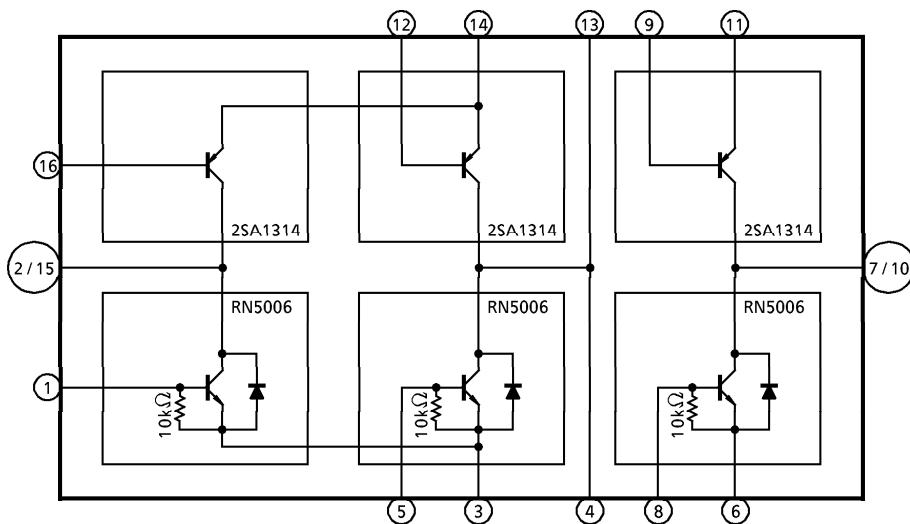


Weight : 0.14g (Typ.)

### FEATURES

- Suitable for high efficiency motor drive circuit.
- Built-in Bias Resistor :  $R = 10k\Omega$
- Built-in Free-Wheeling diode
- Small package sealed : SSOP16
- Low saturation voltage

### 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.

## 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>OUT</sub>	2	A
Base Current	I <sub>B</sub>	0.4	A
Power Dissipation	P <sub>D</sub>	330	mW
Junction Temperature	T <sub>j</sub>	150	°C
Operating Temperature	T <sub>opr</sub>	-20~60	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

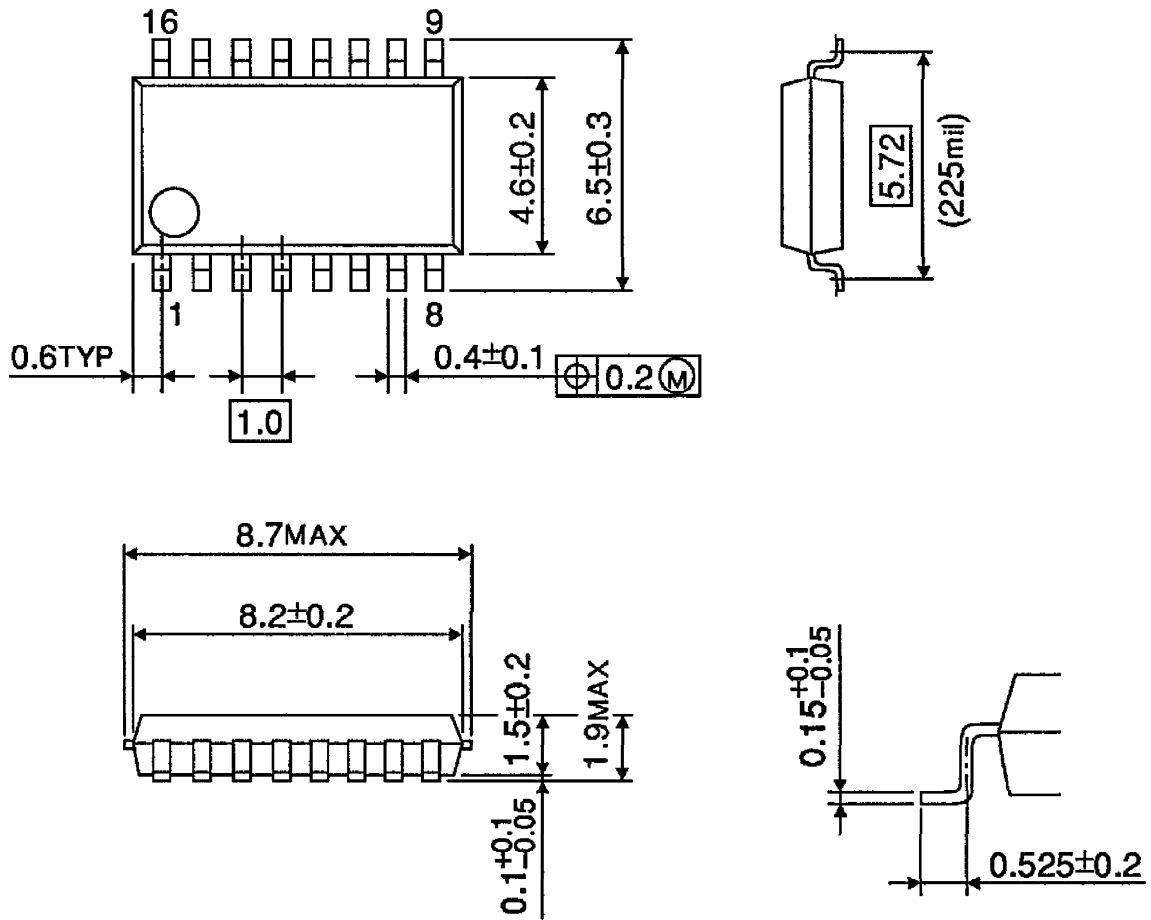
CHARACTERISTIC	SYMBOL	MEASURING Tr	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Current Gain	h <sub>FE</sub> 1	2SA1314	—	V <sub>CE</sub> = -1V, I <sub>C</sub> = -0.5A	140	—	600	
	h <sub>FE</sub> 2	RN5006	—	V <sub>CE</sub> = 1V, I <sub>C</sub> = 0.5A	160	—	600	
Saturation Voltage	V <sub>CE</sub> 1	2SA1314	—	I <sub>C</sub> = -2A, I <sub>B</sub> = -50mA	-0.5	—	—	V
	V <sub>CE</sub> 2	RN5006	—	I <sub>C</sub> = 2A, I <sub>B</sub> = 50mA	—	—	0.5	V
Output Leak Current	I <sub>OFF</sub>		—	V <sub>CC</sub> = 7V	—	—	1.0	μA
Input Resistance	R	RN5006	—		7	10	13	kΩ
Diode Forward Voltage	V <sub>F</sub>	RN5006	—	I <sub>F</sub> = 300mA	—	0.89	1.2	V
Transition Frequency	f <sub>T1</sub>	2SA1314	—	V <sub>CE</sub> = -1V, I <sub>C</sub> = -0.5A	—	140	—	MHz
	f <sub>T2</sub>	RN5006	—	V <sub>CE</sub> = 1V, I <sub>C</sub> = 0.5A	—	140	—	MHz

980910EBA2'

- The products described in this document are subject to the foreign exchange and foreign trade laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

**OUTLINE DRAWING**  
SSOP16-P-225-1.00A

Unit : mm



Weight : 0.14g (Typ.)