

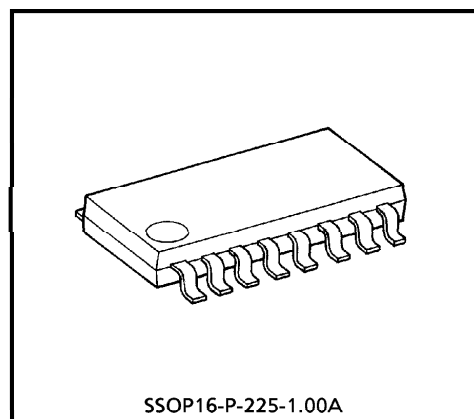
TA8300F

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.

FEATURES

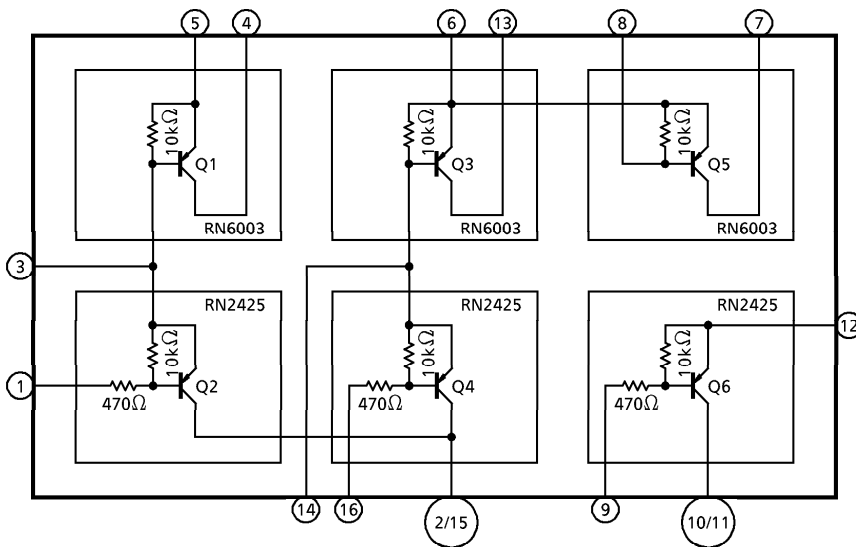
- Suitable for high efficiency motor drive circuit.
- Built-in Bias Resistor : $R = 10k\Omega$
- Small package sealed : SSOP16
- Low saturation voltage
- H-bridge (only upper side)



SSOP16-P-225-1.00A

Weight : 0.14g (Typ.)

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. 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 |

980910EBA2'

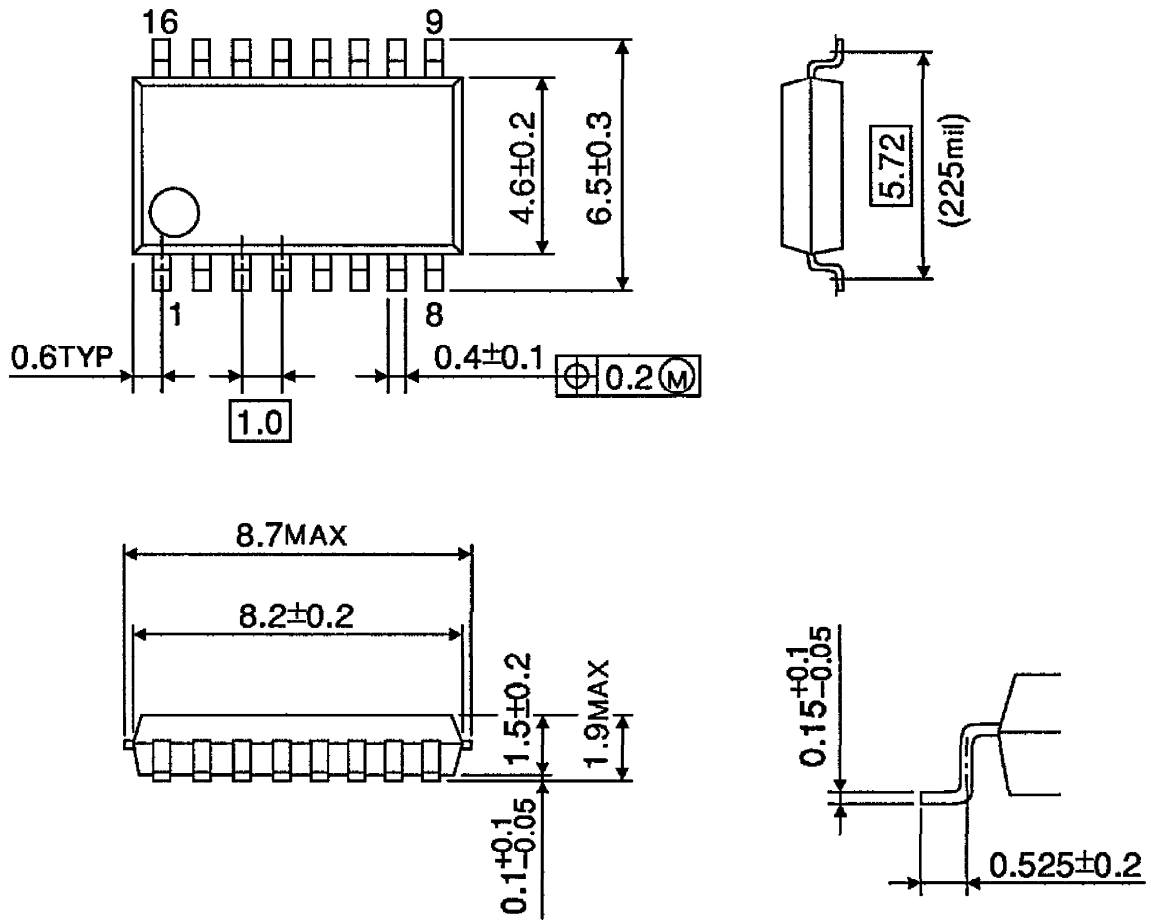
- The products described in this document are subject to the foreign exchange and foreign trade laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property 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.

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 | $k\Omega$ |
| | R_2 | RN2425 | — | | 0.329 | 0.47 | 0.61 | $k\Omega$ |
| 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.)