

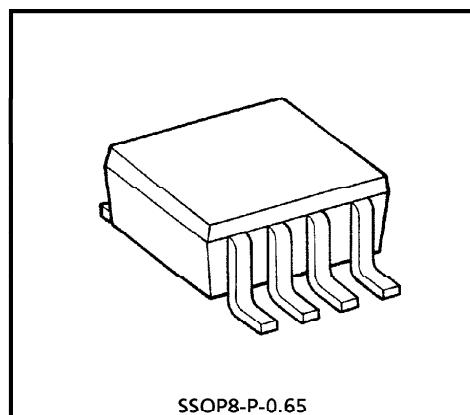
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

**TA75W558FU****DUAL OPERATIONAL AMPLIFIER**

TA75W558FU is a low-noise monolithic precision operational amplifier.

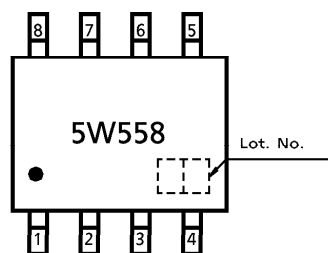
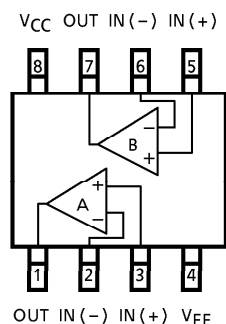
**FEATURES**

- Internal Frequency Compensation Type.
- Pin Compatible with TA75W01FU.
- Wide Band Range :  $f_T = 3\text{MHz}$  (Typ.)
- Noise Voltage Range :  $V_{NI} = 2.5\mu\text{V}_{\text{rms}}$  (Typ.)
- Power Supply Range :  $\pm 4V_{\text{DC}}$  to  $\pm 18V_{\text{DC}}$
- Suitable Application for Active Filter Equalizer Amplifier and Headphone Amplifier.



SSOP8-P-0.65

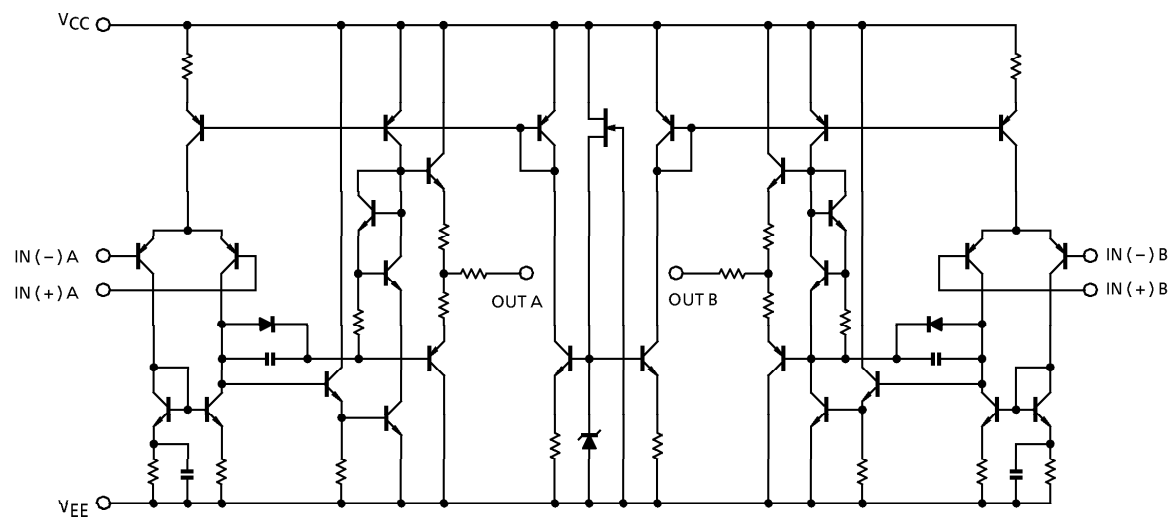
Weight : 0.021g (Typ.)

**MARKING (TOP VIEW)****PIN CONNECTION (TOP VIEW)**

961001EBA2

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EQUIVALENT CIRCUIT

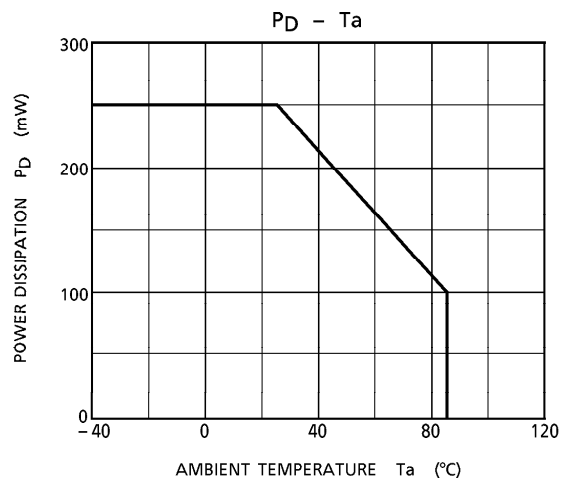
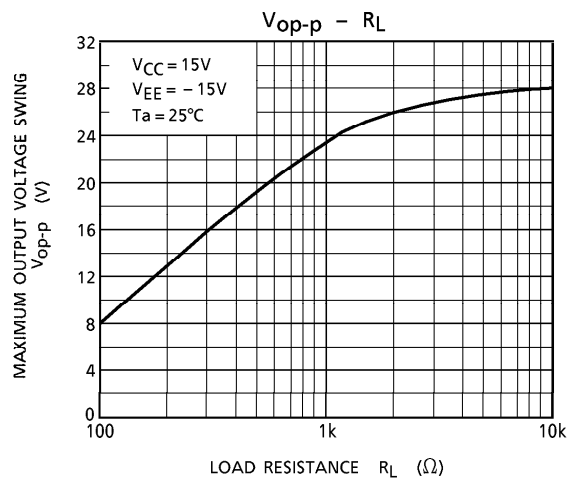
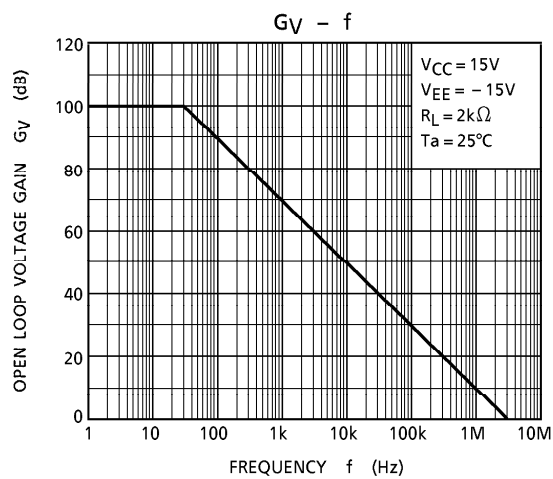
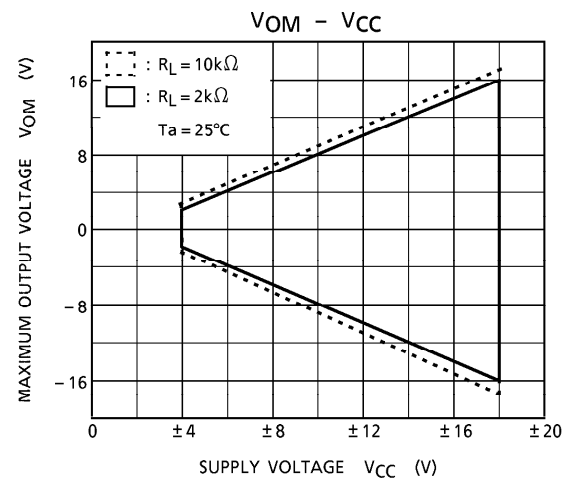


MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC             | SYMBOL           | RATING               | UNIT |
|----------------------------|------------------|----------------------|------|
| Supply Voltage             | $V_{CC}, V_{EE}$ | $\pm 18$             | V    |
| Differential Input Voltage | $DV_{IN}$        | $\pm 30$             | V    |
| Input Voltage              | $V_{IN}$         | $V_{EE} \sim V_{CC}$ | V    |
| Power Dissipation          | $P_D$            | 250                  | mW   |
| Operating Temperature      | $T_{opr}$        | $-40 \sim 85$        | °C   |
| Storage Temperature        | $T_{stg}$        | $-55 \sim 125$       | °C   |

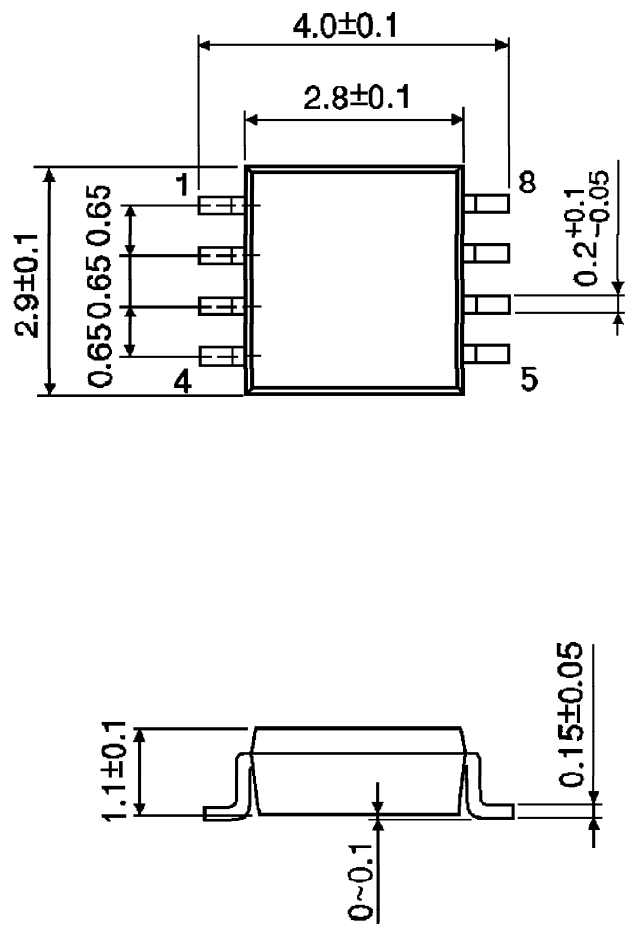
ELECTRICAL CHARACTERISTICS ( $V_{CC} = 15V$ ,  $V_{EE} = -15V$ ,  $T_a = 25^\circ C$ )

| CHARACTERISTICS                          | SYMBOL       | TEST CIR-CUIT | TEST CONDITION                           | MIN.     | TYP.     | MAX. | UNIT          |
|------------------------------------------|--------------|---------------|------------------------------------------|----------|----------|------|---------------|
| Input Offset Voltage                     | $V_{IO}$     | —             | $R_g \leq 10k\Omega$                     | —        | 0.5      | 6    | mV            |
| Input Offset Current                     | $I_{IO}$     | —             | —                                        | —        | 5        | 200  | nA            |
| Input Bias Current                       | $I_I$        | —             | —                                        | —        | 60       | 500  | nA            |
| Common Mode Input Voltage                | $CMV_{IN}$   | —             | —                                        | $\pm 12$ | $\pm 14$ | —    | V             |
| Maximum Output Voltage                   | $V_{OM}$     | —             | $R_L = 10k\Omega$                        | $\pm 12$ | $\pm 14$ | —    | V             |
|                                          | $V_{OMR}$    | —             | $R_L = 2k\Omega$                         | $\pm 10$ | $\pm 13$ | —    |               |
| Source Current                           | $I_{source}$ | —             | —                                        | —        | 40       | —    | mA            |
| Sink Current                             | $I_{sink}$   | —             | —                                        | —        | 40       | —    | mA            |
| Voltage Gain (Open Loop)                 | $G_V$        | —             | $V_{OUT} = \pm 10V$ , $R_L = 2k\Omega$   | 86       | 100      | —    | dB            |
| Common Mode Input Signal Rejection Ratio | CMRR         | —             | $R_g \leq 10k\Omega$                     | 70       | 90       | —    | dB            |
| Supply Voltage Rejection Ratio           | SVRR         | —             | $R_g \leq 10k\Omega$                     | —        | 30       | 150  | $\mu V/V$     |
| Slew Rate                                | SR           | —             | $G_V = 1$ , $R_L = 2k\Omega$             | —        | 1.0      | —    | V / $\mu s$   |
| Unity Gain Cross Frequency               | $f_T$        | —             | —                                        | —        | 3.0      | —    | MHz           |
| Supply Current                           | $I_{CC}$     | —             | —                                        | —        | 4.0      | 6.0  | mA            |
| Equivalent Input Noise Voltage           | $V_{NI}$     | —             | $R_S = 1k\Omega$ , $f = 30Hz \sim 30kHz$ | —        | 2.5      | —    | $\mu V_{rms}$ |



OUTLINE DRAWING  
SSOP8-P-0.65

Unit : mm



Weight : 0.021g (Typ.)