

# 2SA1534, 2SA1534A

## Silicon PNP epitaxial planer type

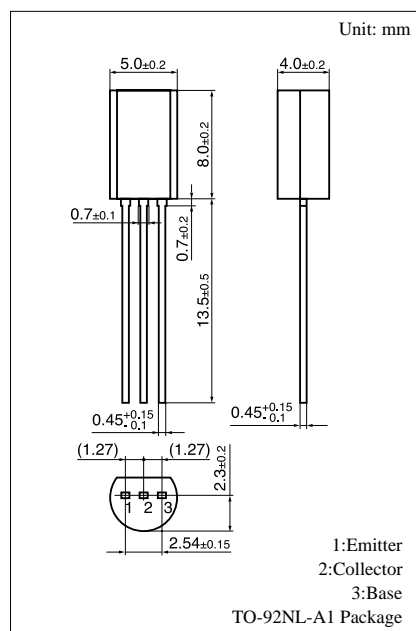
For low-frequency power amplification and driver amplification  
Complementary to 2SC3940 and 2SC3940A

### Features

- Complementary pair with 2SC3940 and 2SC3940A.
- Allowing supply with the radial tapering and automatic insertion possible.

### Absolute Maximum Ratings (Ta=25°C)

| Parameter                    | Symbol           | Ratings    | Unit |
|------------------------------|------------------|------------|------|
| Collector to base voltage    | 2SA1534          | -30        | V    |
|                              | 2SA1534A         | -60        |      |
| Collector to emitter voltage | 2SA1534          | -25        | V    |
|                              | 2SA1534A         | -50        |      |
| Emitter to base voltage      | V <sub>EBO</sub> | -5         | V    |
| Peak collector current       | I <sub>CP</sub>  | -1.5       | A    |
| Collector current            | I <sub>C</sub>   | -1         | A    |
| Collector power dissipation  | P <sub>C</sub>   | 1          | W    |
| Junction temperature         | T <sub>j</sub>   | 150        | °C   |
| Storage temperature          | T <sub>stg</sub> | -55 ~ +150 | °C   |

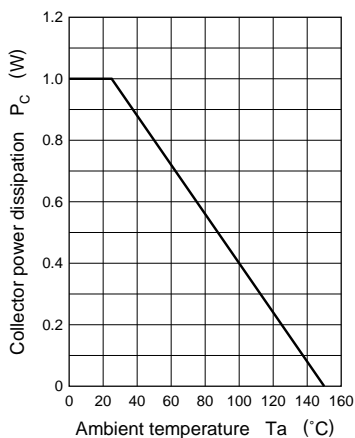
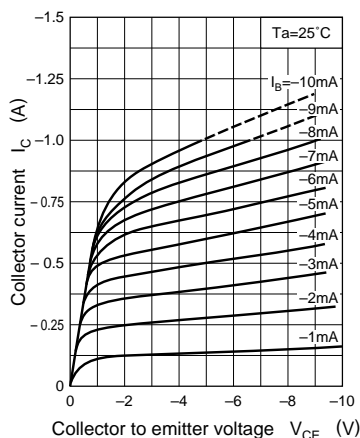
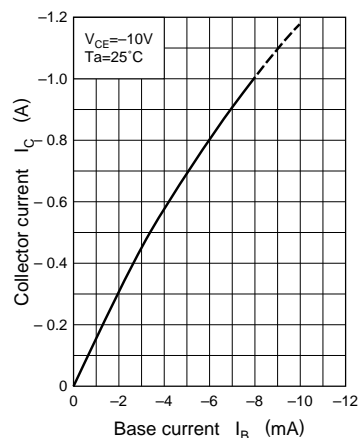
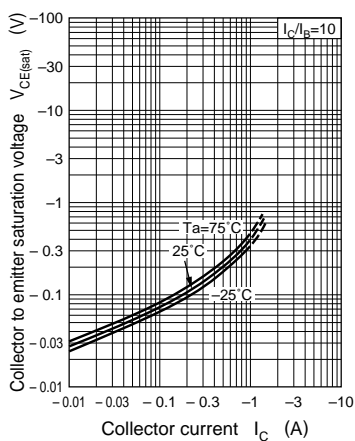
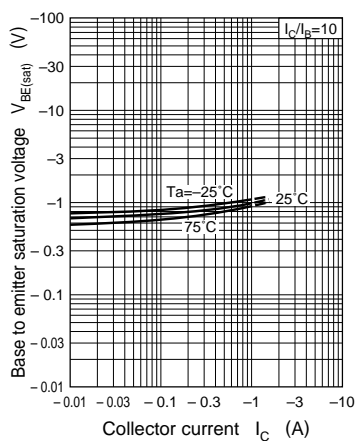
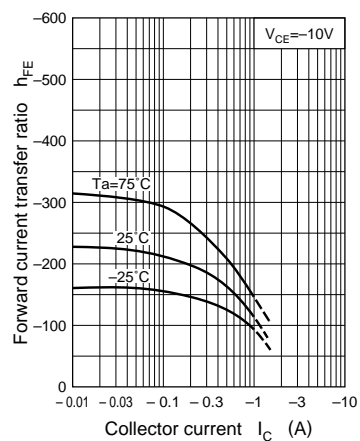
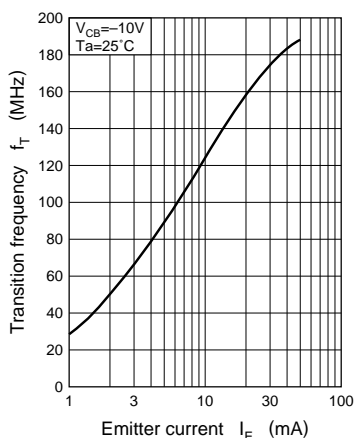
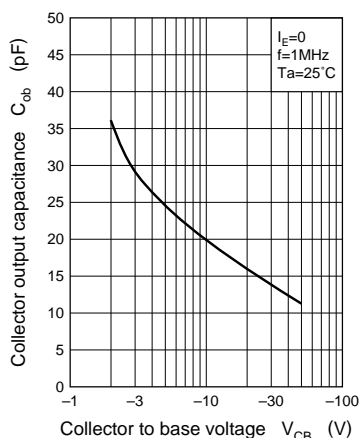
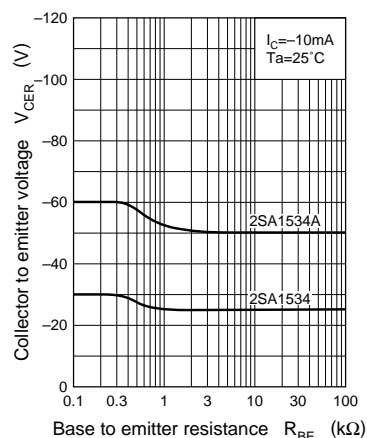


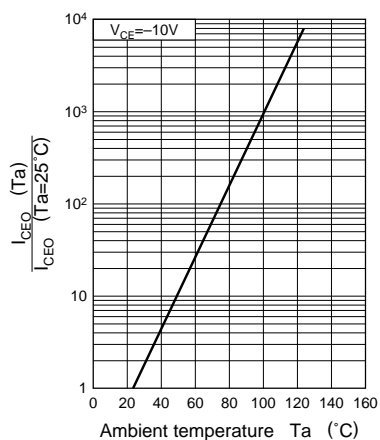
### Electrical Characteristics (Ta=25°C)

| Parameter                               | Symbol               | Conditions  | min | typ    | max   | Unit |
|---|----------------------|---|-----|--------|-------|------|
| Collector cutoff current                | I <sub>CBO</sub>     | V <sub>CB</sub> = -20V, I <sub>E</sub> = 0                |     |        | - 0.1 | μA   |
| Collector to base voltage               | 2SA1534              | I <sub>C</sub> = -10μA, I <sub>E</sub> = 0                | -30 |        |       | V    |
|   | 2SA1534A             |   | -60 |        |       |      |
| Collector to emitter voltage            | 2SA1534              | I <sub>C</sub> = -2mA, I <sub>B</sub> = 0                 | -25 |        |       | V    |
|   | 2SA1534A             |   | -50 |        |       |      |
| Emitter to base voltage                 | V <sub>EBO</sub>     | I <sub>E</sub> = -10μA, I <sub>C</sub> = 0                | -5  |        |       | V    |
| Forward current transfer ratio          | h <sub>FE1</sub> *   | V <sub>CE</sub> = -10V, I <sub>C</sub> = -500mA           | 85  |        | 340   |      |
|   | h <sub>FE2</sub>     | V <sub>CE</sub> = -5V, I <sub>C</sub> = -1A               | 50  |        |       |      |
| Collector to emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA           |     | - 0.2  | - 0.4 | V    |
| Base to emitter saturation voltage      | V <sub>BE(sat)</sub> | I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA           |     | - 0.85 | - 1.2 | V    |
| Transition frequency                    | f <sub>T</sub>       | V <sub>CB</sub> = -10V, I <sub>E</sub> = 50mA, f = 200MHz |     | 200    |       | MHz  |
| Collector output capacitance            | C <sub>ob</sub>      | V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz      |     | 20     | 30    | pF   |

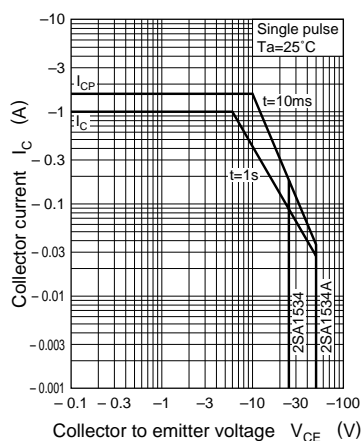
\*h<sub>FE1</sub> Rank classification

| Rank             | Q        | R         | S         |
|------------------|----------|-----------|-----------|
| h <sub>FE1</sub> | 85 ~ 170 | 120 ~ 240 | 170 ~ 340 |

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $V_{CER} - R_{BE}$ 

$I_{CEO} - T_a$ 

Area of safe operation (ASO)



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