2SD0601A (2SD601A)

Silicon NPN epitaxial planer type

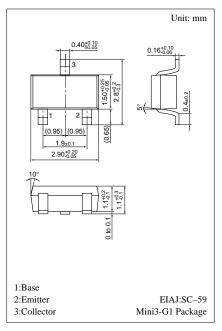
For general amplification Complementary to 2SB0709A (2SB709A)

Features

- High foward current transfer ratio h_{FE}.
- Low collector to emitter saturation voltage V_{CE(sat)}.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Ratings | Unit |
|------------------------------|--------------------|-------------------|------|
| Collector to base voltage | V_{CBO} | 60 | V |
| Collector to emitter voltage | V_{CEO} | 50 | V |
| Emitter to base voltage | V_{EBO} | 7 | V |
| Peak collector current | I_{CP} | 200 | mA |
| Collector current | I_{C} | 100 | mA |
| Collector power dissipation | P_{C} | 200 | mW |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | $T_{\rm stg}$ | −55 ~ +150 | °C |



Marking symbol: Z

Electrical Characteristics (Ta=25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|----------------------|--|-----|-----|-----|------|
| Collector cutoff current | I_{CBO} | $V_{CB} = 20V, I_E = 0$ | | | 0.1 | μΑ |
| | I_{CEO} | $V_{CE} = 10V, I_{B} = 0$ | | | 100 | μΑ |
| Collector to base voltage | V _{CBO} | $I_{\rm C} = 10\mu{\rm A}, I_{\rm E} = 0$ | 60 | | | V |
| Collector to emitter voltage | V _{CEO} | $I_C = 2mA$, $I_B = 0$ | 50 | | | V |
| Emitter to base voltage | V _{EBO} | $I_E = 10\mu A, I_C = 0$ | 7 | | | V |
| Forward current transfer ratio | h _{FE1} * | $V_{CE} = 10V, I_{C} = 2mA$ | 160 | | 460 | |
| | h _{FE2} | $V_{CE} = 2V, I_{C} = 100mA$ | 90 | | | |
| Collector to emitter saturation voltage | V _{CE(sat)} | $I_C = 100 \text{mA}, I_B = 10 \text{mA}$ | | 0.1 | 0.3 | V |
| Transition frequency | f_{T} | $V_{CB} = 10V$, $I_E = -2mA$, $f = 200MHz$ | | 150 | | MHz |
| Noise voltage | NV | $V_{CE} = 10V, I_{C} = 1mA, G_{V} = 80dB$ | | 110 | | mV |
| | | $R_g = 100k\Omega$, Function = FLAT | | | | |
| Collector output capacitance | C _{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | | 3.5 | | pF |

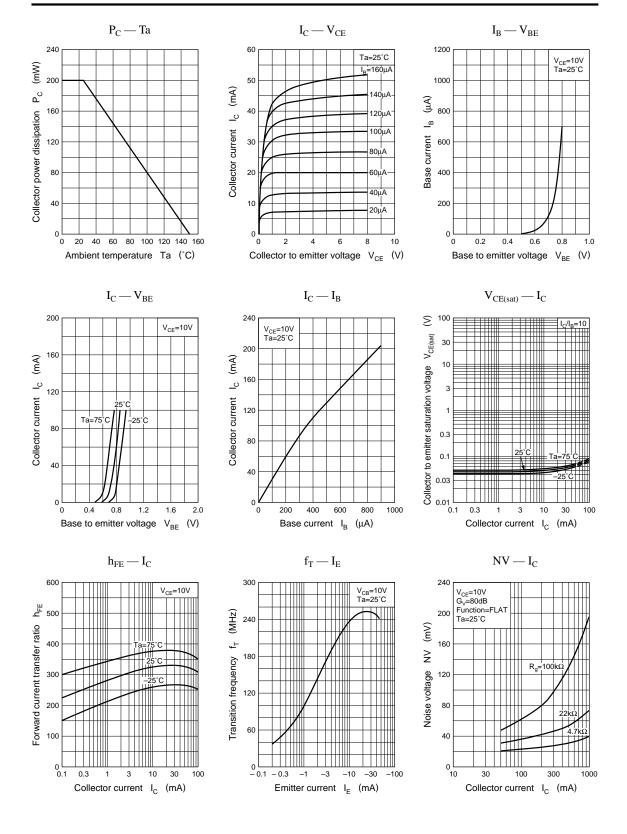
*h_{FE1} Rank classification

| Rank | Q | R | S |
|----------------|-----------|-----------|-----------|
| h_{FE1} | 160 ~ 260 | 210 ~ 340 | 290 ~ 460 |
| Marking Symbol | ZQ | ZR | ZS |

Note.) The Part number in the Parenthesis shows conventional part number.

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Transistor 2SD0601A



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