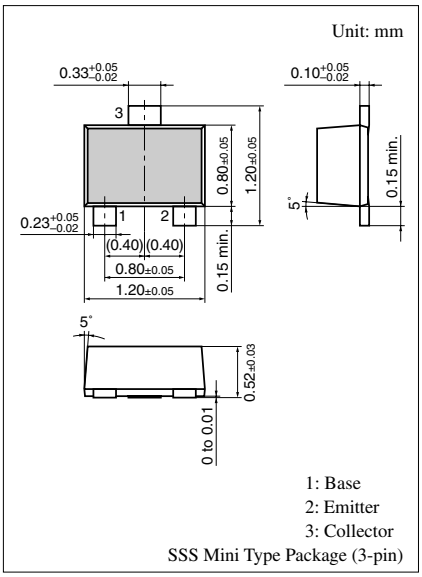
# 2SA2021

## Silicon PNP epitaxial planer type

For general amplification
Complementary to 2SC5609




Marking Symbol: 3E

### ■ Features

- High foward current transfer ratio $h_{FE}$
- SSS-mini type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

### ■ Absolute Maximum Ratings $T_a = 25°C$

| Parameter | Symbol | Rating | 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 | $P_C$ | 100 | mW |
| Junction temperature | $T_j$ | 125 | °C |
| Storage temperature | $T_{stg}$ | −55 to +125 | °C |

### ■ Electrical Characteristics $T_a = 25°C \pm 3°C$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector cutoff current | $I_{CBO}$ | $V_{CB} = -20$ V, $I_E = 0$ | | | − 0.1 | μA |
| | $I_{CEO}$ | $V_{CE} = -10$ V, $I_B = 0$ | | | −100 | μA |
| Collector to base voltage | $V_{CBO}$ | $I_C = -10$ μA, $I_E = 0$ | −60 | | | V |
| Collector to emitter voltage | $V_{CEO}$ | $I_C = -100$ μA, $I_B = 0$ | −50 | | | V |
| Emitter to base voltage | $V_{EBO}$ | $I_E = -10$ μA, $I_C = 0$ | −7 | | | V |
| Forward current transfer ratio | $h_{FE}$ | $V_{CE} = -10$ V, $I_C = -2$ mA | 180 | | 390 | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100$ mA, $I_B = -10$ mA | | − 0.3 | − 0.5 | V |
| Collector output capacitance | $C_{ob}$ | $V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz | | 2.7 | | pF |
| Transition frequency | $f_T$ | $V_{CB} = -10$ V, $I_E = 1$ mA, f = 200 MHz | | 80 | | MHz |