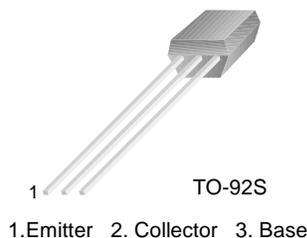


KSB811

KSB811

Audio Frequency Power Amplifier

- Complement to KSD1021
- Collector Current : $I_C = -1A$
- Collector Power Dissipation : $P_C = 350mW$



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

| Symbol | Parameter | Ratings | Units |
|-----------|-----------------------------|-----------|------------|
| V_{CBO} | Collector-Base Voltage | -30 | V |
| V_{CEO} | Collector-Emitter Voltage | -25 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current | -1.0 | A |
| P_C | Collector Power Dissipation | 350 | mW |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{STG} | Storage Temperature | -55 ~ 150 | $^\circ C$ |

Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|-----------------------------------|------|------|------|---------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C = -100\mu A, I_E = 0$ | -30 | | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C = -10mA, I_B = 0$ | -25 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E = -100\mu A, I_C = 0$ | -5 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = -30V, I_E = 0$ | | | -0.1 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = -1V, I_C = -100mA$ | 70 | | 400 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -1A, I_B = -0.1A$ | | | -0.5 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C = -1A, I_B = -0.1A$ | | | -1.2 | V |
| f_T | Current Gain Bandwidth Product | $V_{CE} = -6V, I_C = -10mA$ | | 110 | | MHz |
| C_{ob} | Output Capacitance | $V_{CB} = -6V, I_E = 0, f = 1MHz$ | | 18 | | pF |

h_{FE} Classification

| Classification | O | Y | G |
|----------------|----------|-----------|-----------|
| h_{FE} | 70 ~ 140 | 120 ~ 240 | 200 ~ 400 |

Typical Characteristics

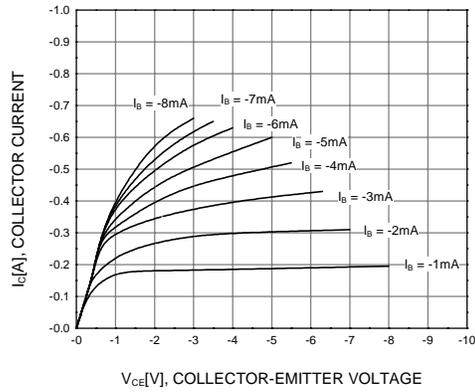


Figure 1. Static Characteristic

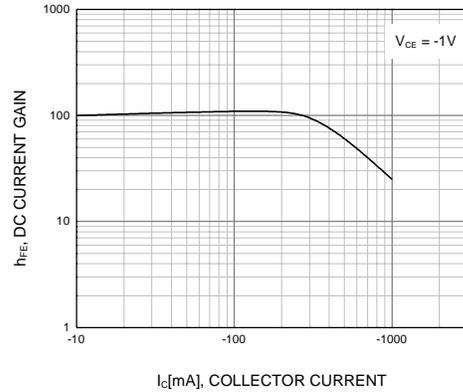


Figure 2. DC current Gain

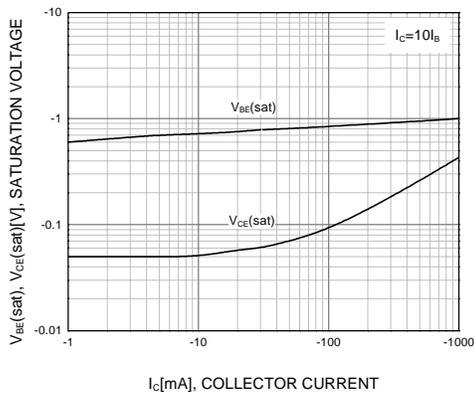


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

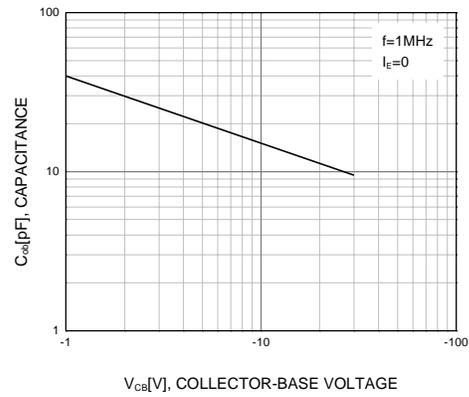


Figure 4. Collector Output Capacitance

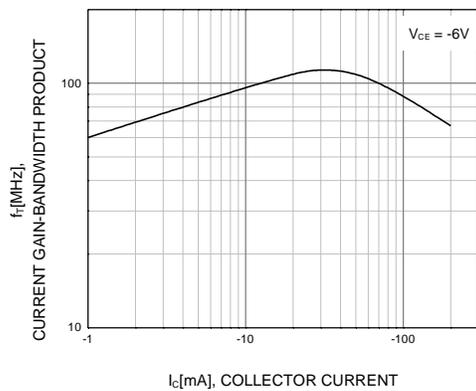


Figure 5. Current Gain Bandwidth Product

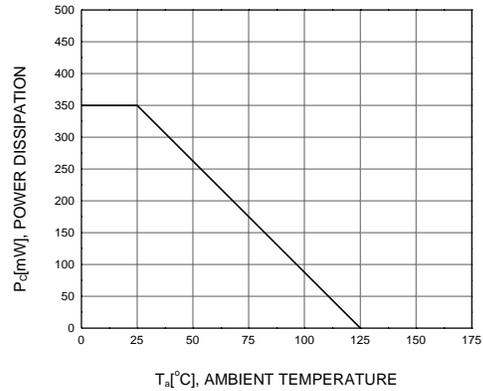
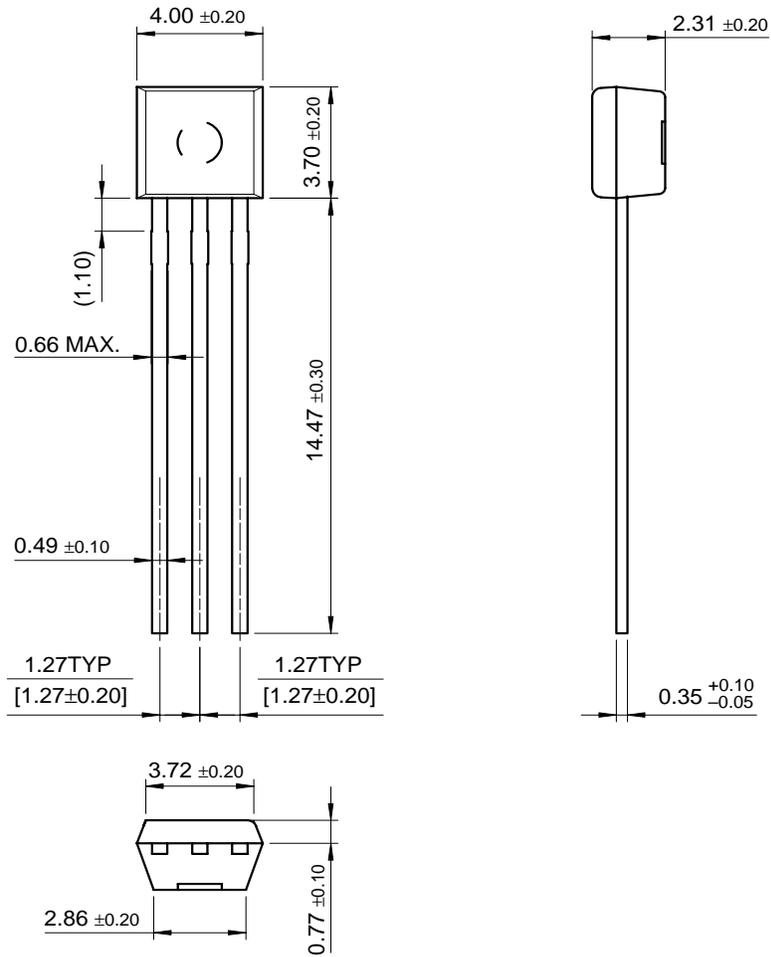


Figure 6. Power Derating

Package Dimensions

TO-92S



Dimensions in Millimeters

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| EcoSPARK™ | ISOPLANAR™ | QS™ | TruTranslation™ |
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