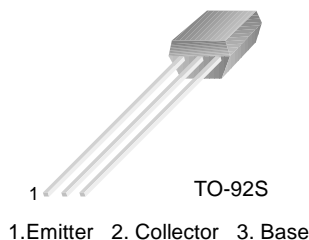


KSC3488

KSC3488

Low Frequency Power Amplifier

- Complement to KSA1378
- Collector Dissipation : $P_C=300\text{mW}$



NPN Epitaxial Silicon Transistor

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

| Symbol | Parameter | Value | 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 | 300 | mA |
| P_C | Collector Power Dissipation | 300 | mW |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | -55 ~ 150 | $^\circ\text{C}$ |

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

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|----------------------|--------------------------------------|-------------------------------------|------|------|------|---------------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C=100\mu\text{A}, I_E=0$ | 30 | | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C=10\text{mA}, I_B=0$ | 25 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E=10\mu\text{A}, I_C=0$ | 5 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB}=25\text{V}, I_E=0$ | | | 0.1 | μA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB}=3\text{V}, I_C=0$ | | | 0.1 | μA |
| h_{FE} | DC Current Gain | $V_{CE}=1\text{V}, I_C=50\text{mA}$ | 70 | | 400 | |
| $V_{CE}(\text{sat})$ | Collector-Emitter Saturation Voltage | $I_C=300\text{mA}, I_B=30\text{mA}$ | | 0.14 | 0.4 | V |

h_{FE} Classification

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

Typical Characteristics

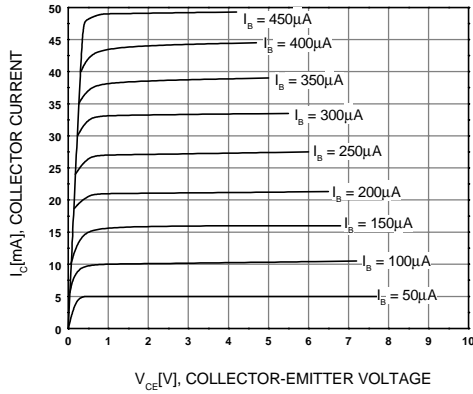


Figure 1. Static Characteristic

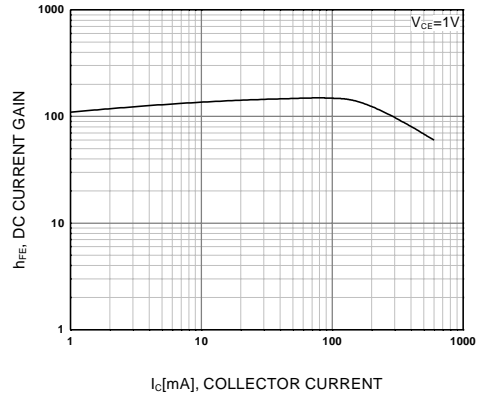


Figure 2. DC current Gain

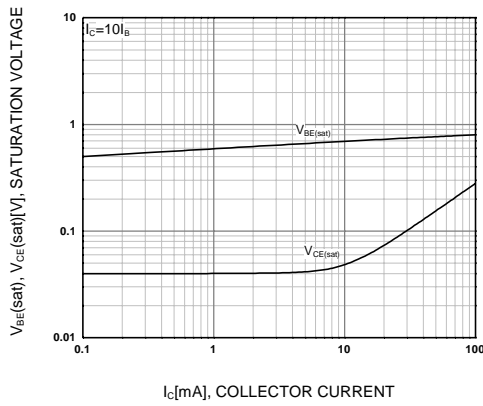


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

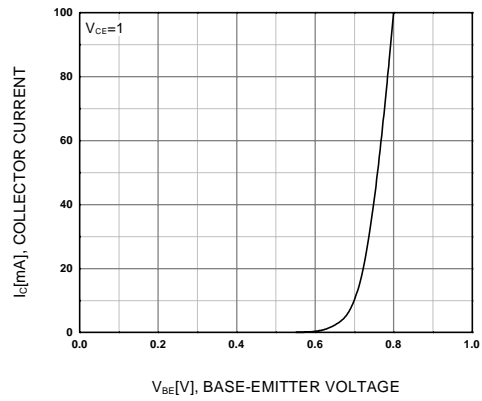


Figure 4. Base-Emitter On Voltage

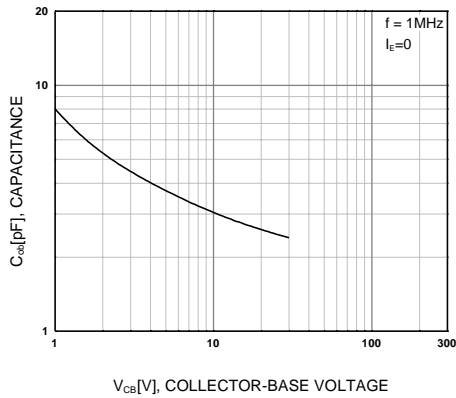


Figure 5. Collector Output Capacitance

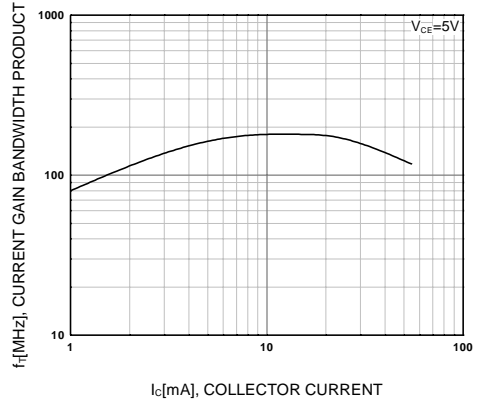
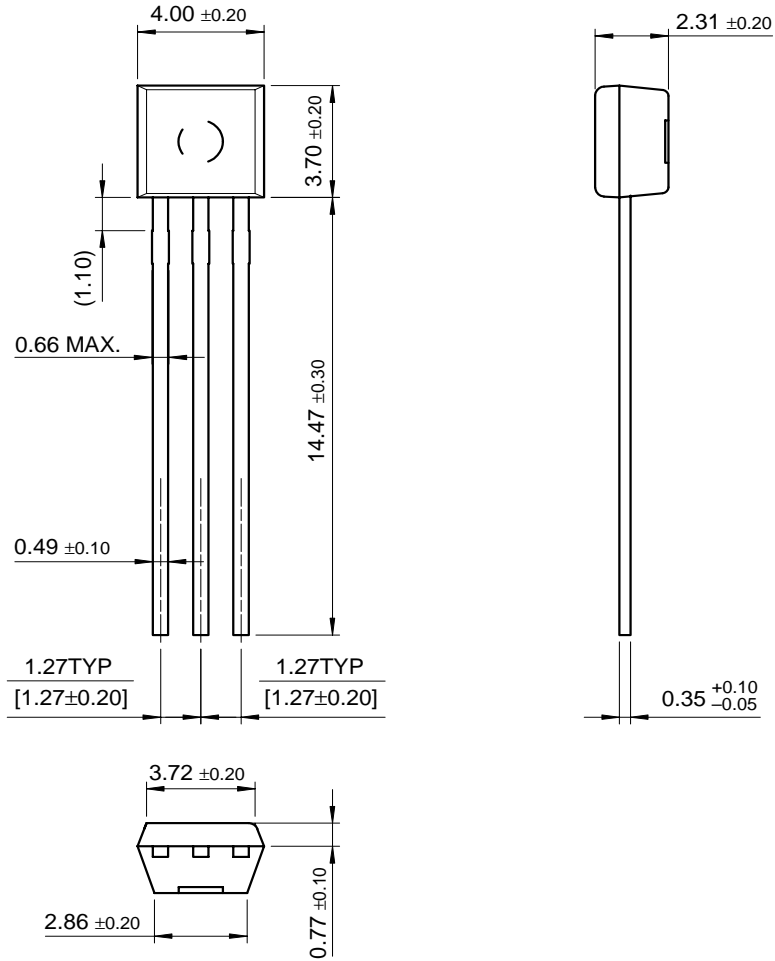


Figure 6. Current Gain Bandwidth Product

Package Dimensions

TO-92S



Dimensions in Millimeters

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