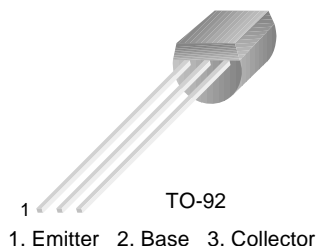


SS8050

2W Output Amplifier of Portable Radios in Class B Push-pull Operation.

- Complimentary to SS8550
- Collector Current: $I_C=1.5A$
- Collector Power Dissipation: $P_C=2W$ ($T_C=25^\circ C$)



NPN Epitaxial Silicon Transistor

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

| Symbol | Parameter | Ratings | Units |
|-----------|-----------------------------|-----------|------------|
| V_{CBO} | Collector-Base Voltage | 40 | V |
| V_{CEO} | Collector-Emitter Voltage | 25 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current | 1.5 | A |
| P_C | Collector Power Dissipation | 1 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{STG} | Storage Temperature | -65 ~ 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 | $I_C=100\mu A, I_E=0$ | 40 | | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C=2mA, I_B=0$ | 25 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E=100\mu A, I_C=0$ | 6 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB}=35V, I_E=0$ | | | 100 | nA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB}=6V, I_C=0$ | | | 100 | nA |
| h_{FE1} h_{FE2} h_{FE3} | DC Current Gain | $V_{CE}=1V, I_C=5mA$ $V_{CE}=1V, I_C=100mA$ $V_{CE}=1V, I_C=800mA$ | 45 85 40 | | 300 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=800mA, I_B=80mA$ | | | 0.5 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C=800mA, I_B=80mA$ | | | 1.2 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $V_{CE}=1V, I_C=10mA$ | | | 1 | V |
| C_{ob} | Output Capacitance | $V_{CB}=10V, I_E=0, f=1MHz$ | | 9.0 | | pF |
| f_T | Current Gain Bandwidth Product | $V_{CE}=10V, I_C=50mA$ | 100 | | | MHz |

h_{FE} Classification

| Classification | B | C | D |
|----------------|----------|-----------|-----------|
| h_{FE2} | 85 ~ 160 | 120 ~ 200 | 160 ~ 300 |

Typical Characteristics

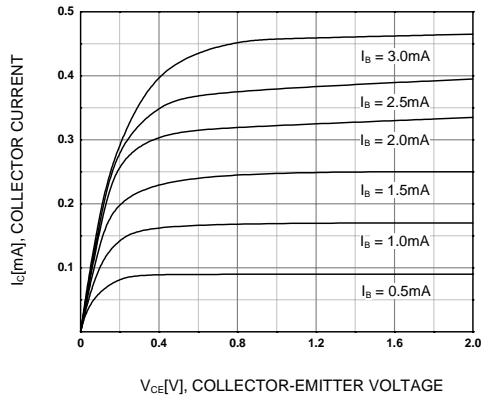


Figure 1. Static Characteristic

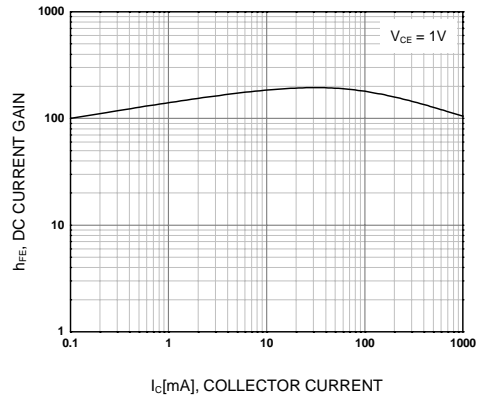


Figure 2. DC current Gain

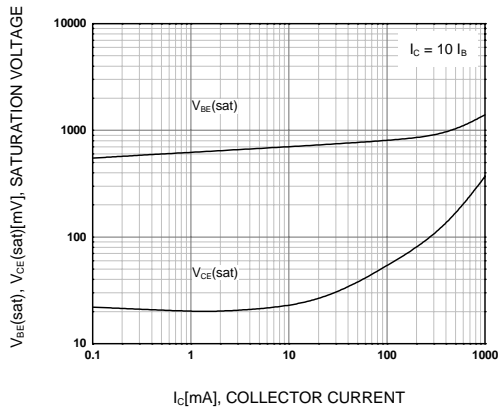


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

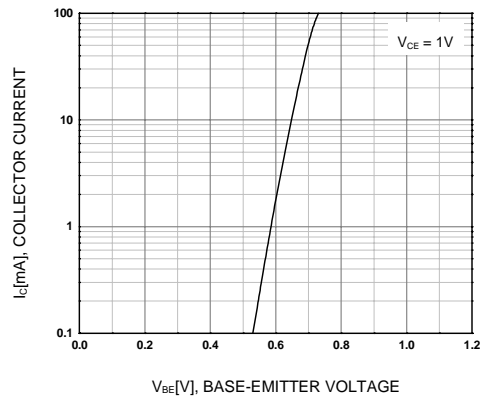


Figure 4. Base-Emitter On Voltage

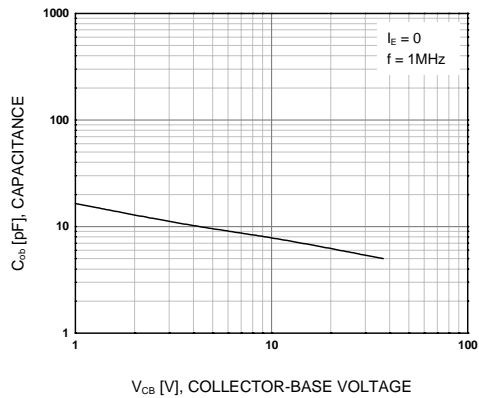


Figure 5. Collector Output Capacitance

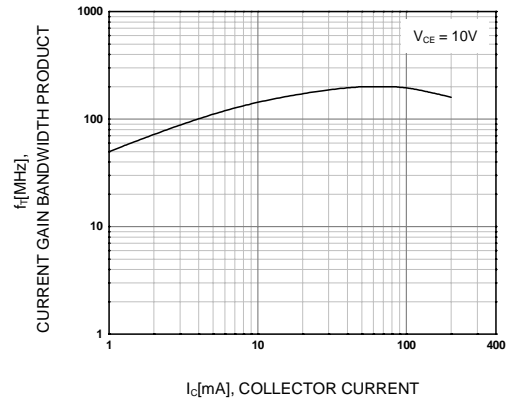
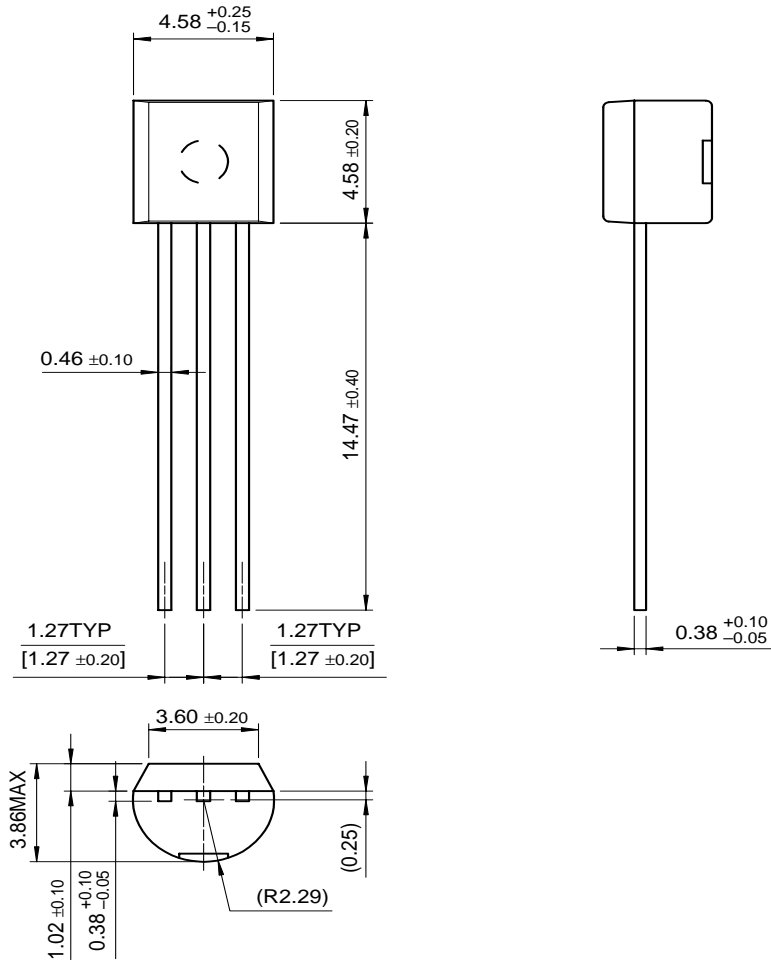


Figure 6. Current Gain Bandwidth Product

Package Dimensions

SS8050

TO-92



Dimensions in Millimeters

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