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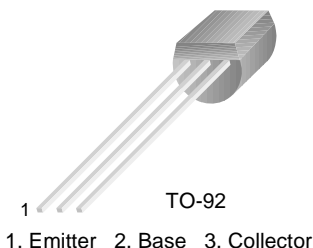
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SS9012

SS9012

1W Output Amplifier of Potable Radios in Class B Push-pull Operation.

- High total power dissipation. ($P_T=625\text{mW}$)
- High Collector Current. ($I_C = -500\text{mA}$)
- Complementary to SS9013
- Excellent h_{FE} linearity.



PNP Epitaxial Silicon Transistor

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

| Symbol | Parameter | Ratings | Units |
|-----------|-----------------------------|-----------|------------------|
| V_{CBO} | Collector-Base Voltage | -40 | V |
| V_{CEO} | Collector-Emitter Voltage | -20 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current | -500 | mA |
| P_C | Collector Power Dissipation | 625 | 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 | $I_C = -100\mu\text{A}, I_E = 0$ | -40 | | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C = -1\text{mA}, I_B = 0$ | -20 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E = -100\mu\text{A}, I_C = 0$ | -5 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = -25\text{V}, I_E = 0$ | | | -100 | nA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = -3\text{V}, I_C = 0$ | | | -100 | nA |
| h_{FE1} h_{FE2} | DC Current Gain | $V_{CE} = -1\text{V}, I_C = -50\text{mA}$ $V_{CE} = -1\text{V}, I_C = -500\text{mA}$ | 64 40 | 120 90 | 202 | |
| $V_{CE}(\text{sat})$ | Collector-Emitter Saturation Voltage | $I_C = -500\text{mA}, I_B = -50\text{mA}$ | | -0.18 | -0.6 | V |
| $V_{BE}(\text{sat})$ | Base-Emitter Saturation Voltage | $I_C = -500\text{mA}, I_B = -50\text{mA}$ | | -0.95 | -1.2 | V |
| $V_{BE}(\text{on})$ | Base-Emitter On Voltage | $V_{CE} = -1\text{V}, I_C = -10\text{mA}$ | -0.6 | -0.67 | -0.7 | V |

h_{FE} Classification

| Classification | D | E | F | G | H |
|----------------|---------|----------|----------|-----------|-----------|
| h_{FE1} | 64 ~ 91 | 78 ~ 112 | 96 ~ 135 | 112 ~ 166 | 144 ~ 202 |

Typical Characteristics

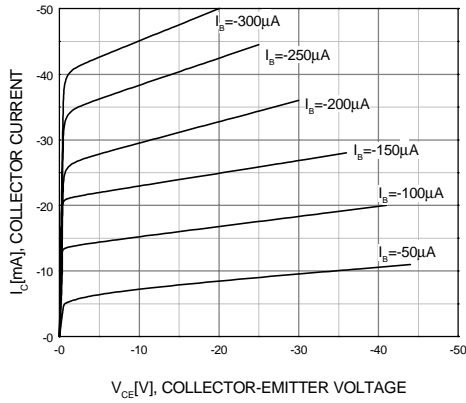


Figure 1. Static Characteristic

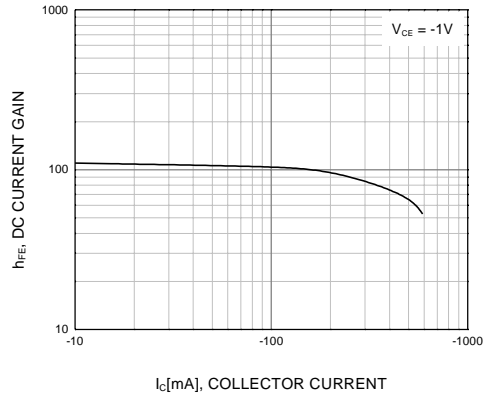


Figure 2. DC current Gain

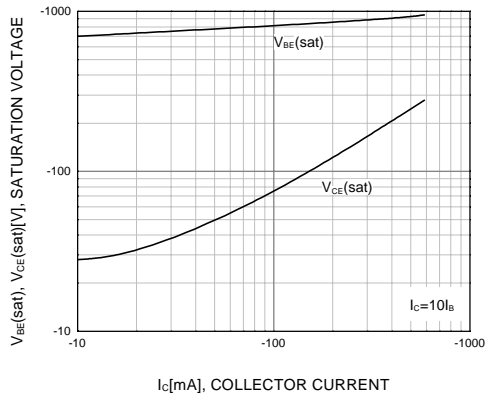


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

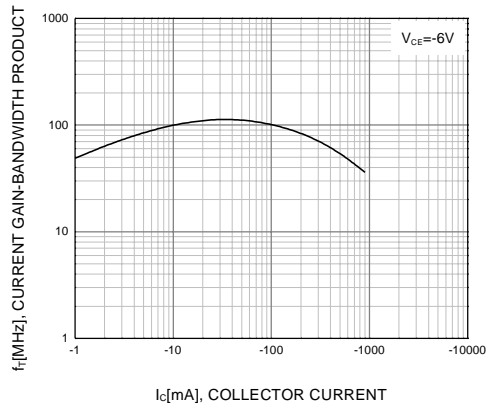
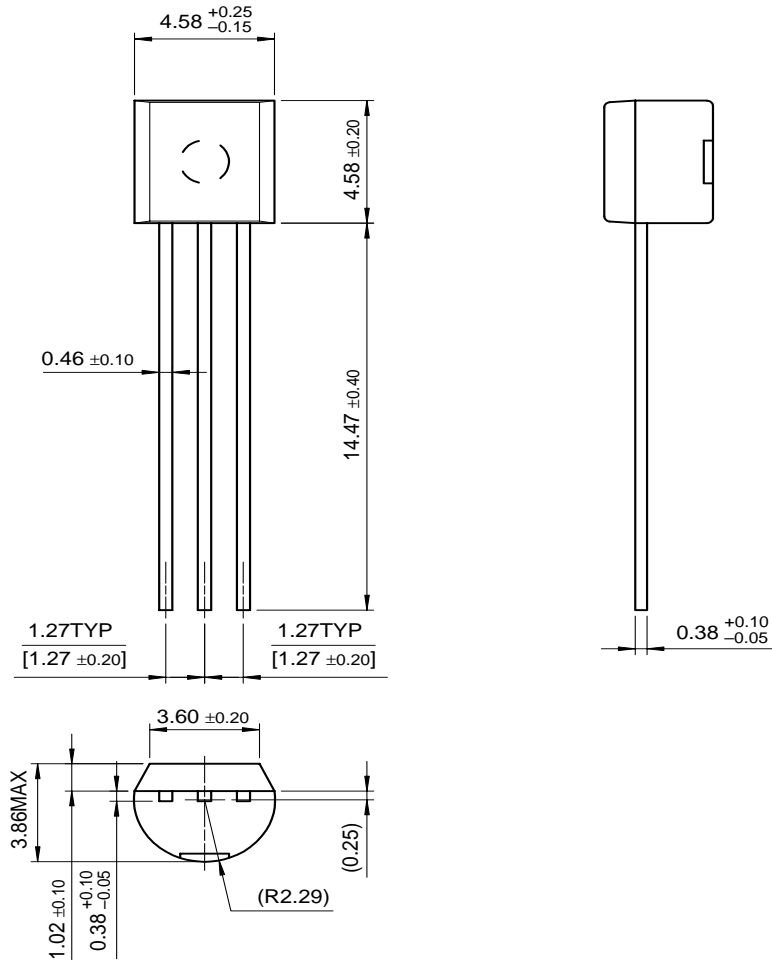


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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