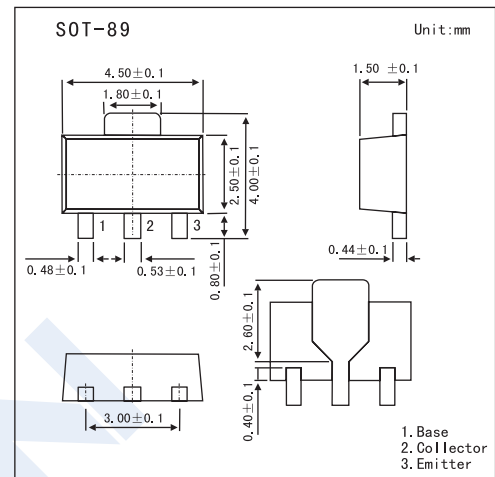


Audio Frequency Amplifier Applications

2SA1204

■ Features

- Suitable For Output Stage of 1 Watts Amplifier
- Small Flat Package
- $P_c = 1$ to 2W (mounted on ceramic substrate)
- Complementary to 2SC2884

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-Base Voltage | V_{CB0} | -35 | V |
| Collector-Emitter Voltage | V_{CE0} | -30 | V |
| Emitter-Base Voltage | V_{EB0} | -5 | V |
| Collector Current | I_c | -800 | mA |
| Base Current | I_B | -160 | mA |
| Collector Power Dissipation | P_c | 500 | mW |
| | P_{c^*} | 1000 | |
| Jumction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature Range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* Mounted on ceramic substrate ($250\text{ mm}^2 \times 0.8\text{ t}$)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|------|-----|------|---------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -35\text{V}$, $I_E = 0$ | | | -0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -5\text{V}$, $I_C = 0$ | | | -0.1 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -10\text{mA}$, $I_B = 0$ | -30 | | | V |
| DC Current Gain | h_{FE} | $V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$ | 100 | | 320 | |
| | | $V_{CE} = -1\text{V}$, $I_C = -700\text{mA}$ | 35 | | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -500\text{mA}$, $I_B = -20\text{mA}$ | | | -0.7 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -1\text{V}$, $I_C = -10\text{mA}$ | -0.5 | | -0.8 | V |
| Transition Frequency | f_T | $V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$ | | 120 | | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$ | | 19 | | pF |

2SA1204

hFE Classification

| | | |
|---------|-----------|-----------|
| Marking | R | |
| Rank | O | Y |
| hFE | 100 ~ 200 | 160 ~ 320 |

Electrical Characteristics Curves

