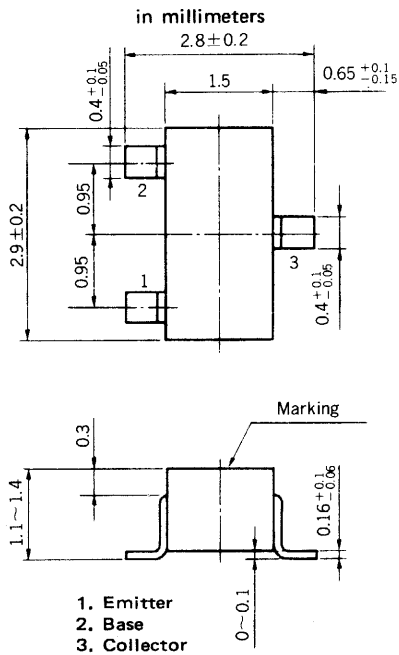


AUDIO FREQUENCY POWER AMPLIFIER
PNP SILICON EPITAXIAL TRANSISTOR
MINI MOLD

PACKAGE DIMENSIONS



DESCRIPTION

The 2SB624 is designed for use in small type equipments especially recommended for hybrid integrated circuit and other applications.

FEATURES

- Micro package.
- High DC current gain. $h_{FE} : 200$ TYP. ($V_{CE} = -1.0$ V, $I_C = -100$ mA)
- Complimentary to the NEC 2SD596 NPN Transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ($T_a = 25^\circ\text{C}$)

| | | | |
|------------------------------|-----------|------|----|
| Collector to Base Voltage | V_{CBO} | -30 | V |
| Collector to Emitter Voltage | V_{CEO} | -25 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current (DC) | I_C | -700 | mA |

Maximum Power Dissipation

| | | | |
|--|-------|-----|----|
| Total Power Dissipation at 25°C Ambient Temperature | P_T | 200 | mW |
|--|-------|-----|----|

Maximum Temperatures

| | | | |
|--------------------------------|-----------|-------------|------------------|
| Storage Temperature Range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |
| Operating Junction Temperature | T_j | 150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

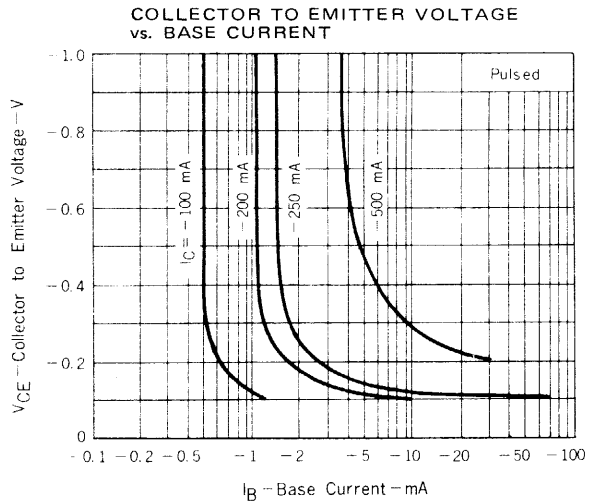
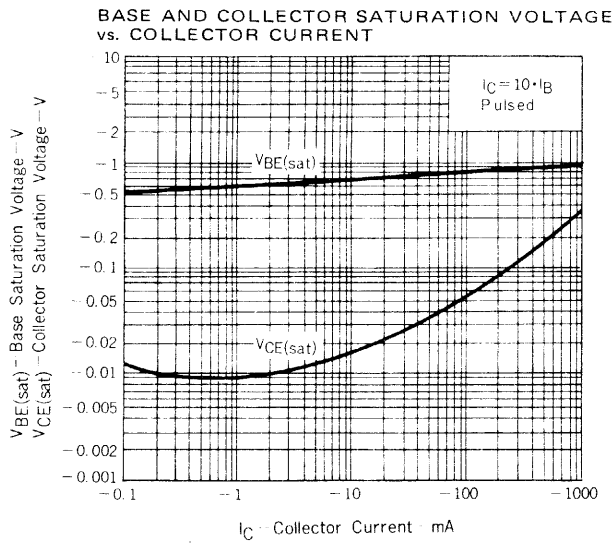
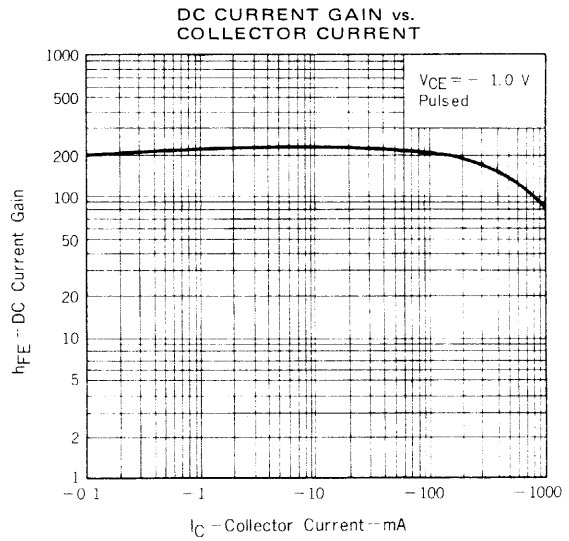
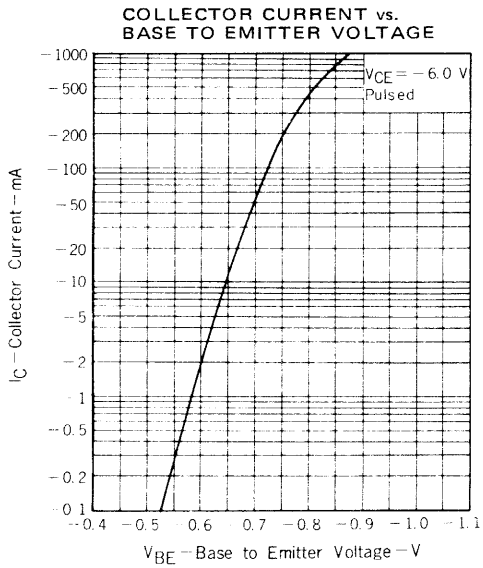
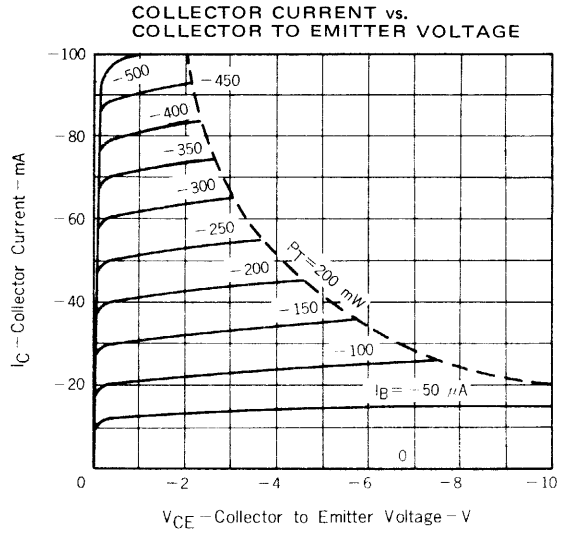
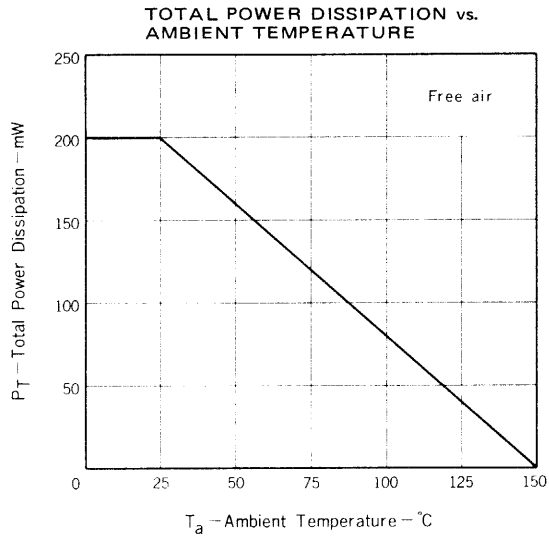
| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------------------|---------------|------|-------|------|------|--|
| Collector Cutoff Current | I_{CBO} | | | -100 | nA | $V_{CB} = -30$ V, $I_E = 0$ |
| Emitter Cutoff Current | I_{EBO} | | | -100 | nA | $V_{EB} = -5.0$ V, $I_C = 0$ |
| DC Current Gain | h_{FE1} | 110 | 200 | 400 | | $V_{CE} = -1.0$ V, $I_C = -100$ mA * |
| DC Current Gain | h_{FE2} | 50 | | | | $V_{CE} = -1.0$ V, $I_C = -700$ mA * |
| Base to Emitter Voltage | V_{BE} | -600 | -640 | -700 | mV | $V_{CE} = -6.0$ V, $I_C = -10$ mA * |
| Collector Saturation Voltage | $V_{CE(sat)}$ | | -0.25 | -0.6 | V | $I_C = -700$ mA, $I_B = -70$ mA * |
| Output Capacitance | C_{ob} | | 17 | | pF | $V_{CB} = -6.0$ V, $I_E = 0$, $f = 1.0$ MHz |
| Gain Bandwidth Product | f_T | | 160 | | MHz | $V_{CE} = -6.0$ V, $I_E = 10$ mA |

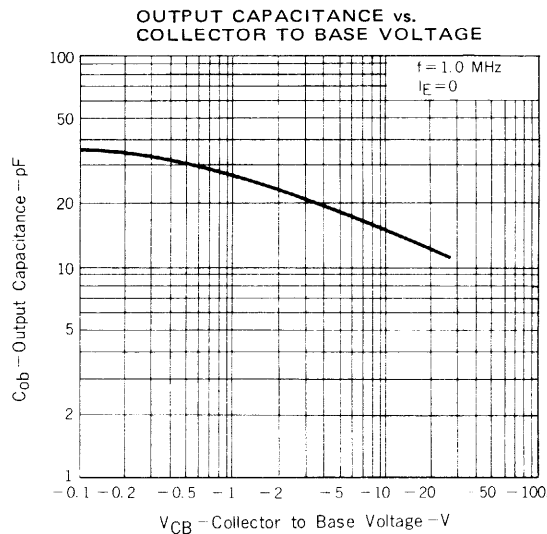
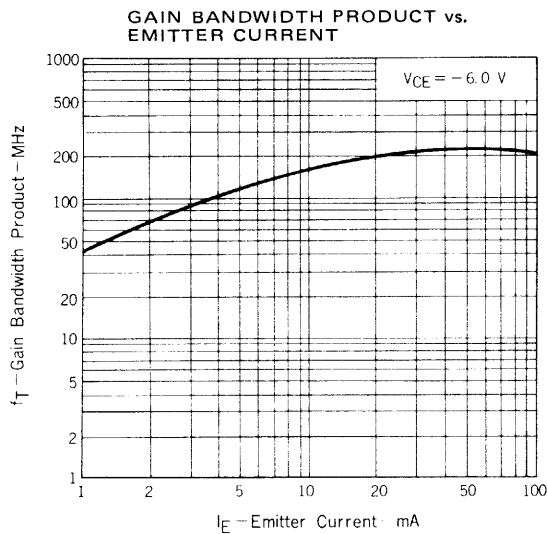
* Pulsed PW ≤ 350 μs , Duty Cycle $\leq 2\%$

h_{FE1} Classification

| Marking | BV1 | BV2 | BV3 | BV4 | BV5 |
|-----------|------------|------------|------------|------------|------------|
| h_{FE1} | 110 to 180 | 135 to 220 | 170 to 270 | 200 to 320 | 250 to 400 |

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)





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