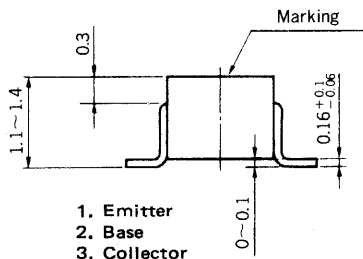
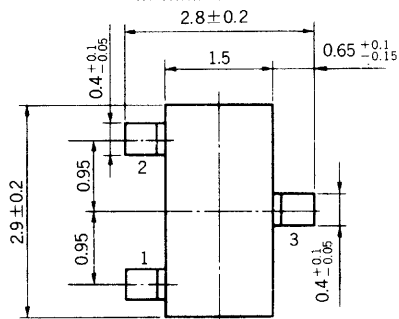


AUDIO FREQUENCY POWER AMPLIFIER
PNP SILICON EPITAXIAL TRANSISTOR
MINI MOLD

PACKAGE DIMENSIONS

in millimeters



- 1. Emitter
- 2. Base
- 3. Collector

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 ($T_a = 25$ °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 | °C |
| Operating Junction Temperature | T_j | 150 | °C |

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

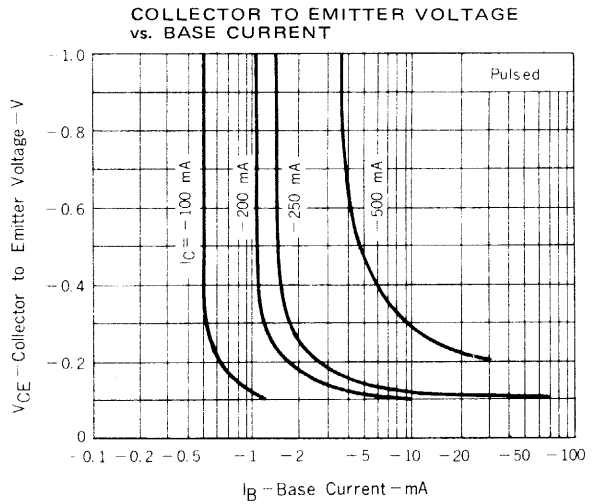
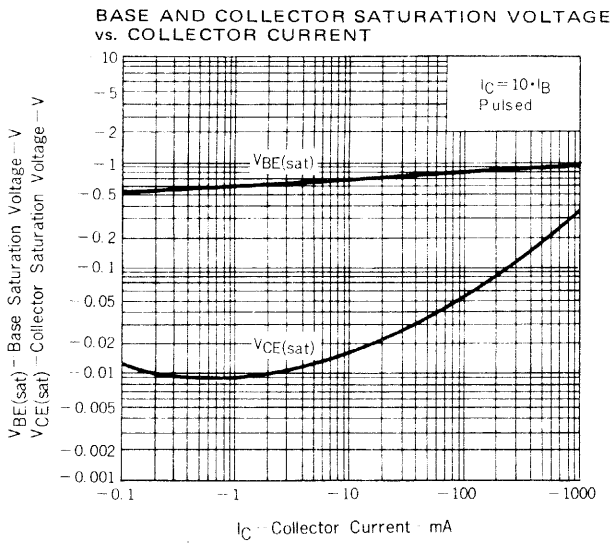
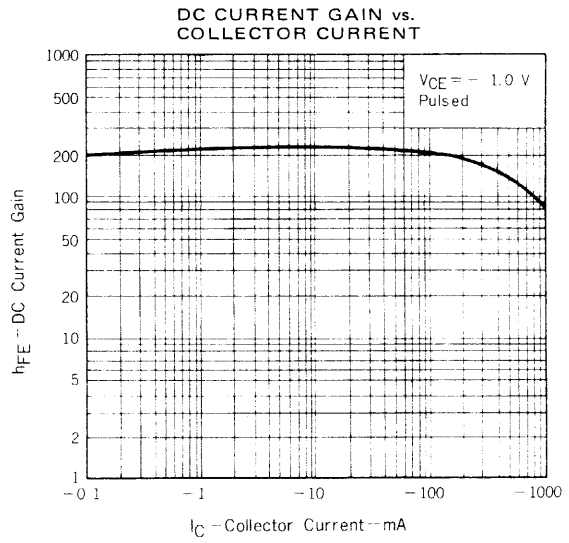
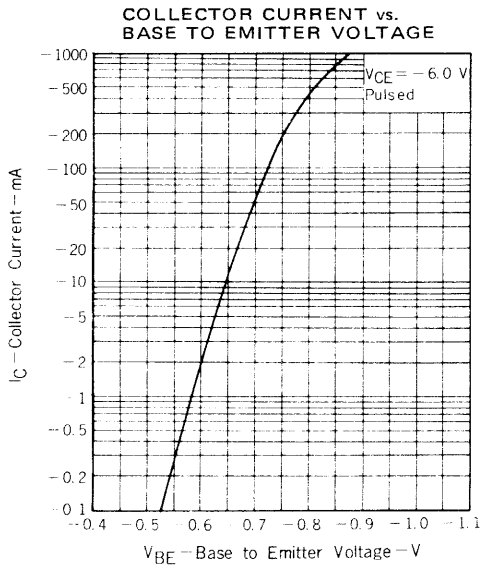
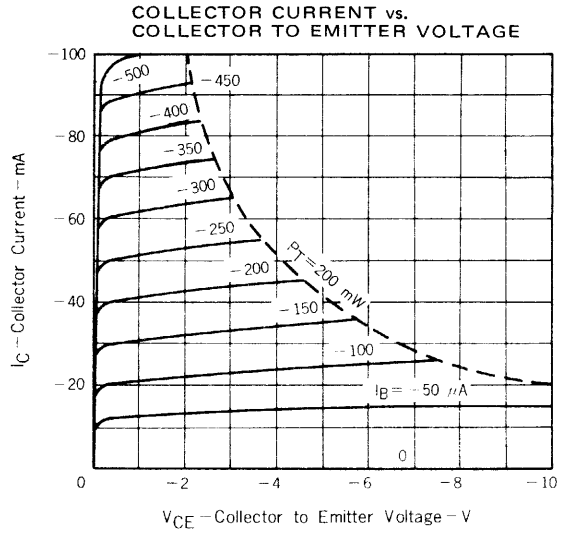
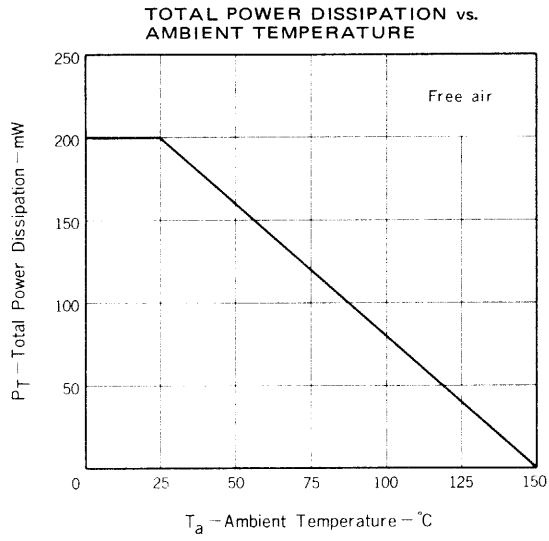
| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------------------|---------------|------|-------|------|------|--|
| Collector Cutoff Current | I_{CBO} | | | -100 | nA | $V_{CB} = -30$ V, $I_E = 0$ |
| Emitter Cutoff Current | I_{EBO} | | | -100 | nA | $V_{EB} = -5.0$ 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 |

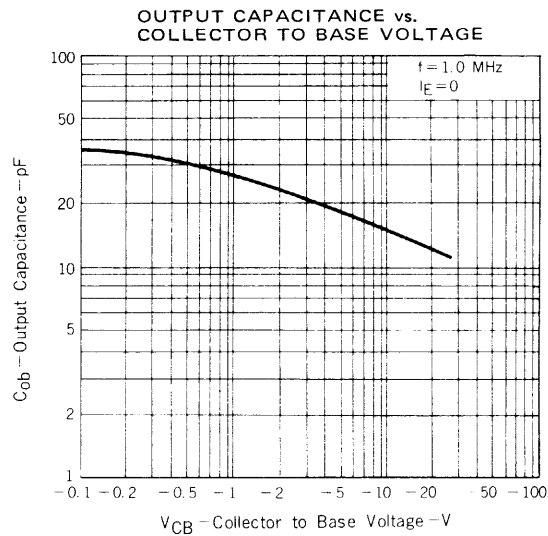
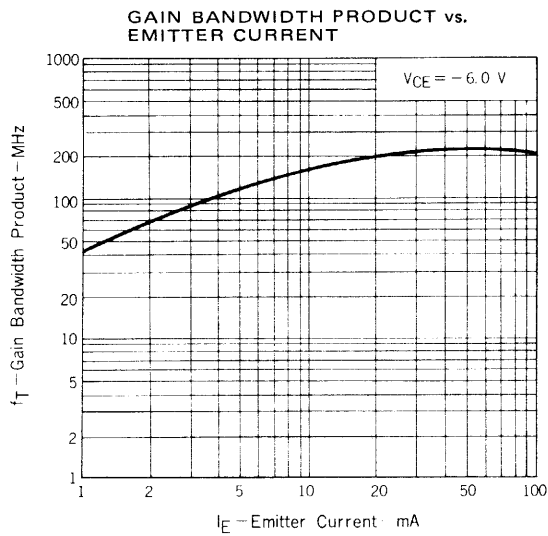
* Pulsed PW ≤ 350 μ s, Duty Cycle ≤ 2 %

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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Printed in Japan