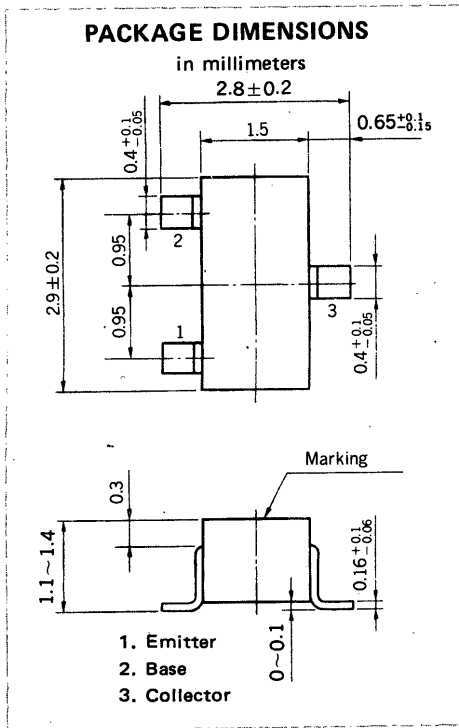


SILICON TRANSISTORS

2SB736, 2SB736A

AUDIO FREQUENCY POWER AMPLIFIER PNP SILICON EPITAXIAL TRANSISTOR MINI MOLD



DESCRIPTION

The 2SB736, 2SB736A are 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, $I_C = -50$ mA)
- Complimentary to the NEC 2SD780, 2SD780A NPN Transistor.

ABSOLUTE MAXIMUM RATINGS

| Maximum Voltages and Current ($T_a = 25^\circ\text{C}$) | 2SB736 | 2SB736A | |
|--|---------------|-------------|------------------|
| Collector to Base Voltage | V_{CBO} -60 | -80 | V |
| Collector to Emitter Voltage | V_{CEO} -60 | -80 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current (DC) | I_C | -300 | 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 ($T_a = 25^\circ\text{C}$)

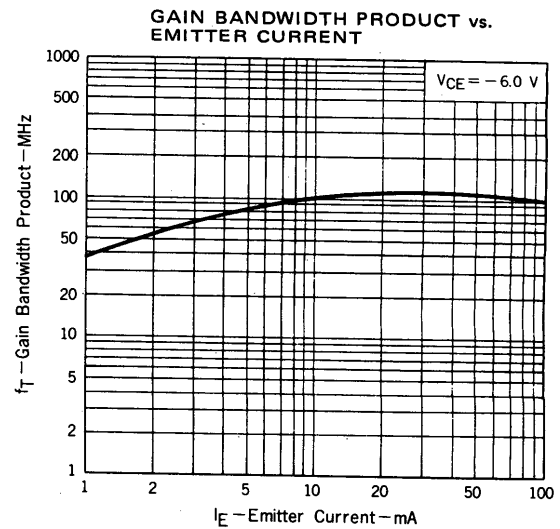
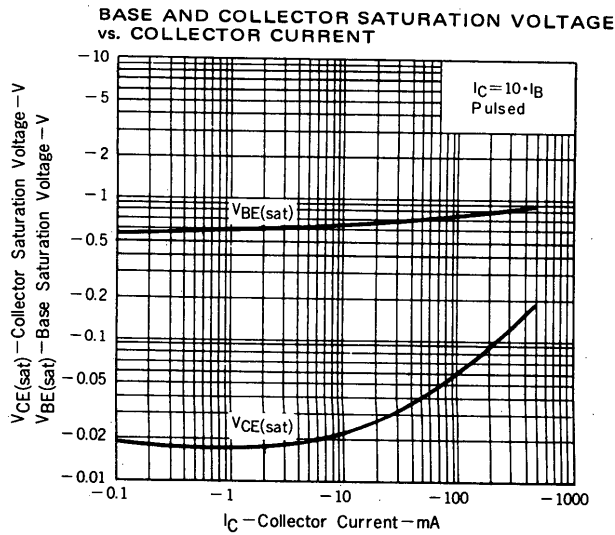
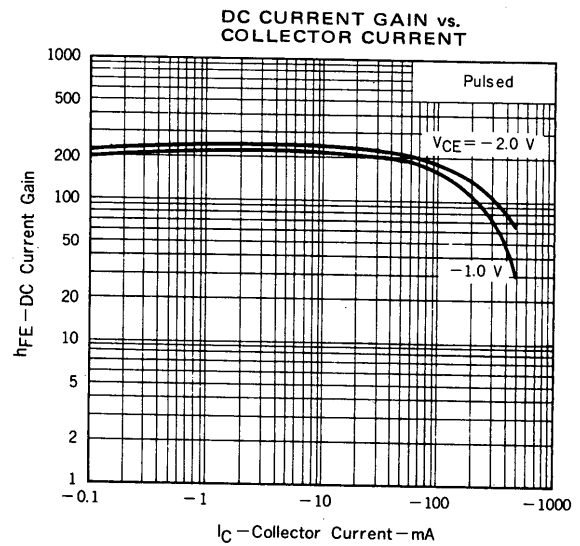
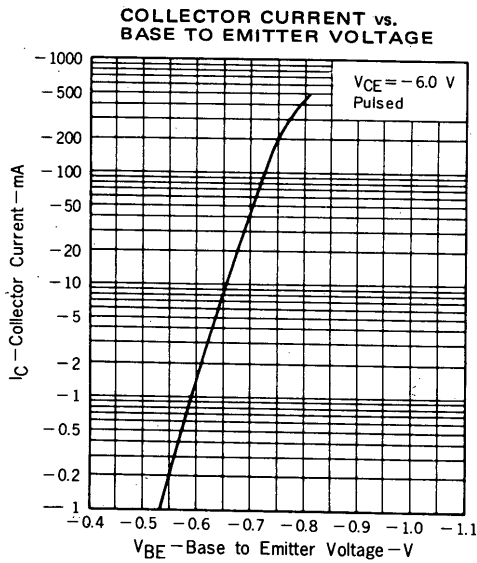
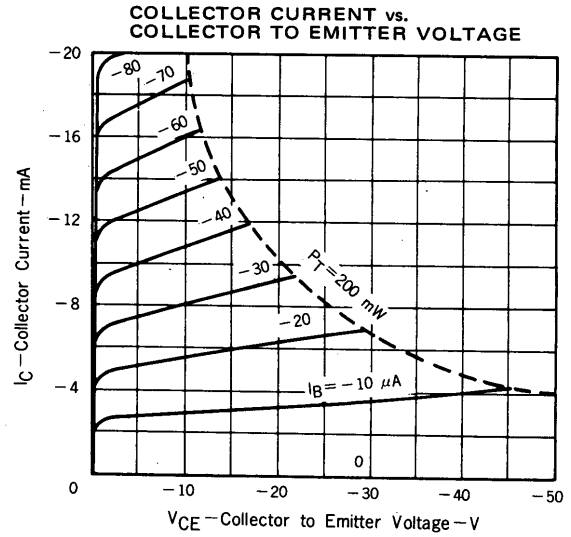
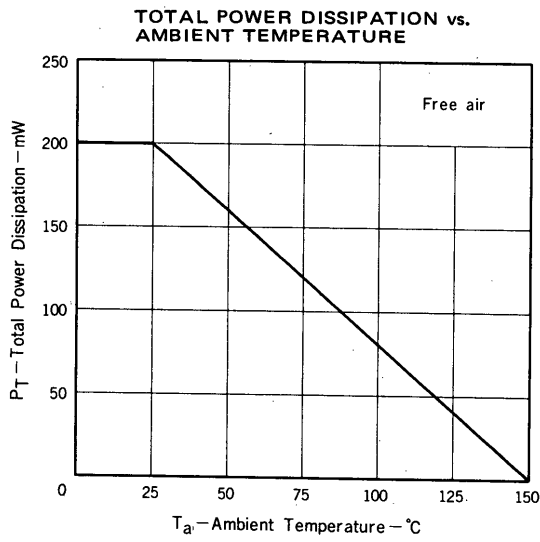
| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------------------|---------------|------|-------|------|------|--|
| Collector Cutoff Current | I_{CBO} | | | -100 | nA | $V_{CB} = -50$ V, $I_E = 0$ |
| Emitter Cutoff Current | I_{EBO} | | | -100 | nA | $V_{EB} = -5.0$ V, $I_C = 0$ |
| DC Current Gain | h_{FE1} | 110 | 200 | 400 | | $V_{CE} = -1.0$ V, $I_C = -50$ mA * |
| DC Current Gain | h_{FE2} | 30 | | | | $V_{CE} = -2.0$ V, $I_C = -300$ mA * |
| Base to Emitter Voltage | V_{BE} | -600 | -660 | -700 | mV | $V_{CE} = -6.0$ V, $I_C = -10$ mA * |
| Collector Saturation Voltage | $V_{CE(sat)}$ | | -0.35 | -0.6 | V | $I_C = -300$ mA, $I_B = -30$ mA * |
| Output Capacitance | C_{ob} | | 13 | | pF | $V_{CB} = -6.0$ V, $I_E = 0$, $f = 1.0$ MHz |
| Gain Bandwidth Product | f_T | | 100 | | MHz | $V_{CE} = -6.0$ V, $I_E = 10$ mA |

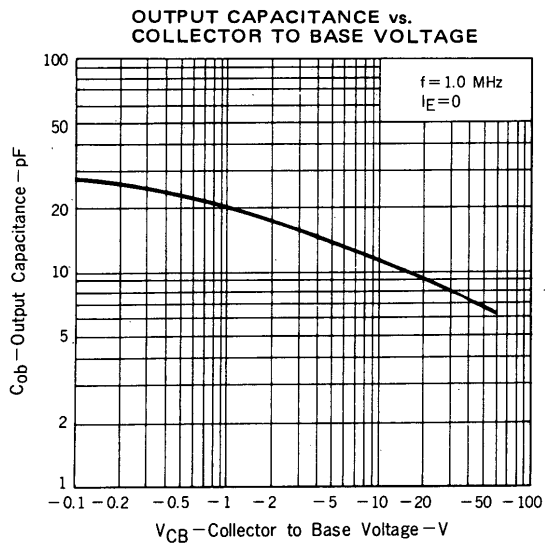
* Pulsed PW ≤ 350 μs , Duty Cycle ≤ 2 %

h_{FE1} Classification

| Marking | 2SB736 | BW1 | BW2 | BW3 | BW4 | BW5 |
|----------|------------|------------|------------|------------|------------|-----|
| | 2SB736A | B51 | B52 | B53 | B54 | B55 |
| h_{FE} | 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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TC-1262B
SEPT.-10-84M
Printed in Japan