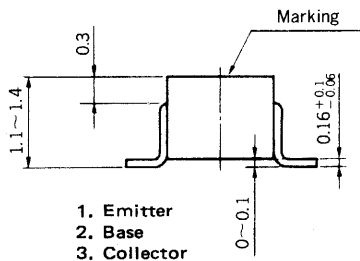
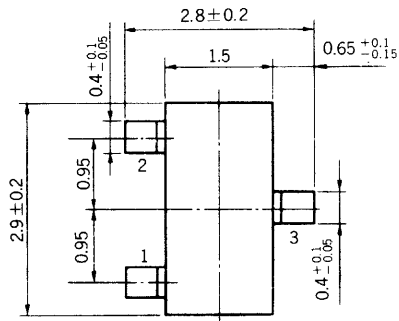


**AUDIO FREQUENCY POWER AMPLIFIER**  
**PNP SILICON EPITAXIAL TRANSISTOR**  
**MINI MOLD**

**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)**

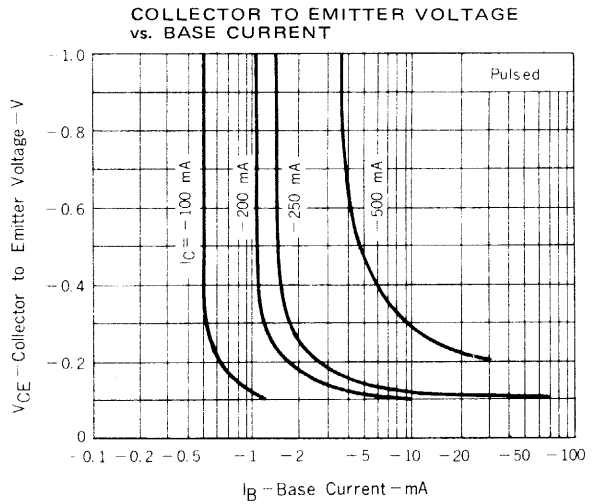
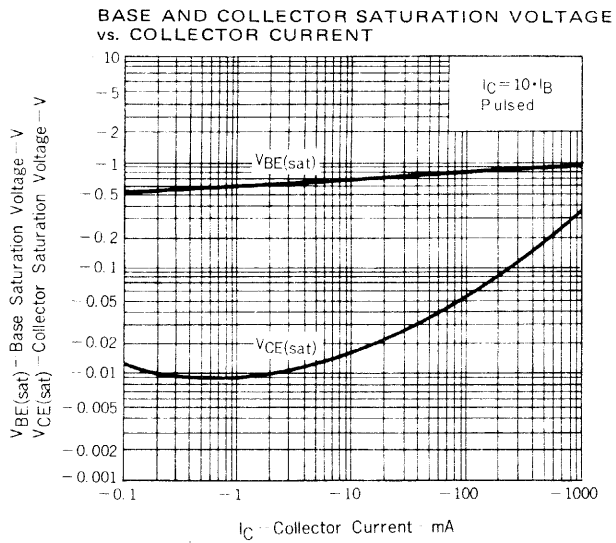
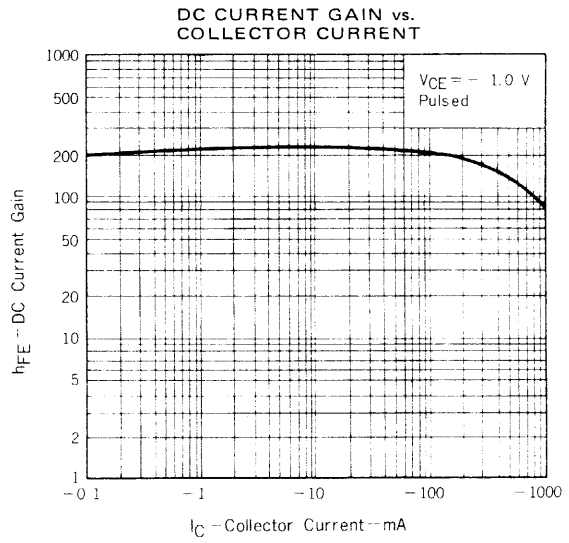
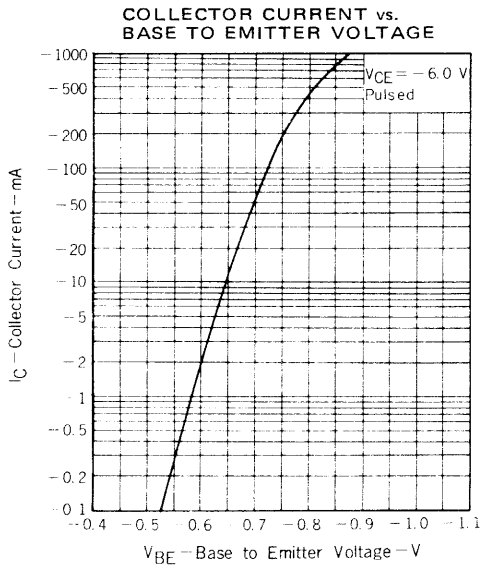
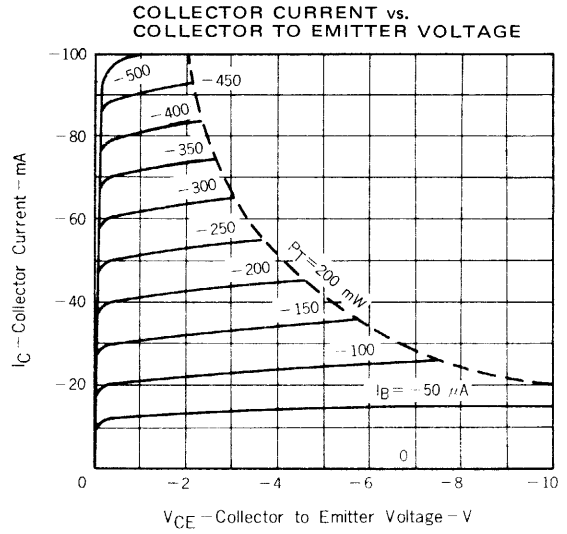
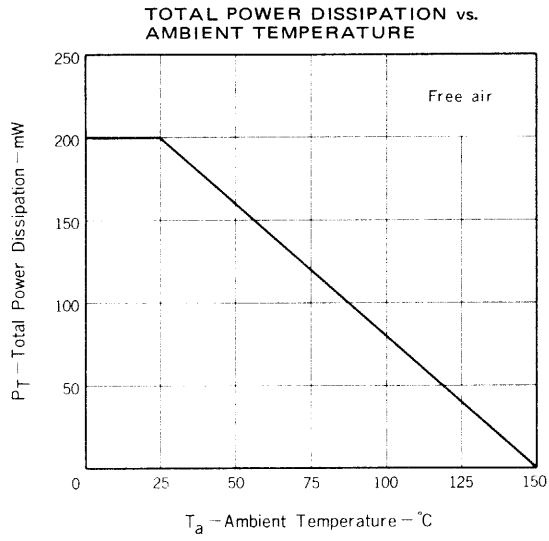
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	$I_{CBO}$			-100	nA	$V_{CB} = -30$ V, $I_E = 0$
Emitter Cutoff Current	$I_{EBO}$			-100	nA	$V_{EB} = -5.0$ V, $I_C = 0$
DC Current Gain	$h_{FE1}$	110	200	400		$V_{CE} = -1.0$ V, $I_C = -100$ mA *
DC Current Gain	$h_{FE2}$	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

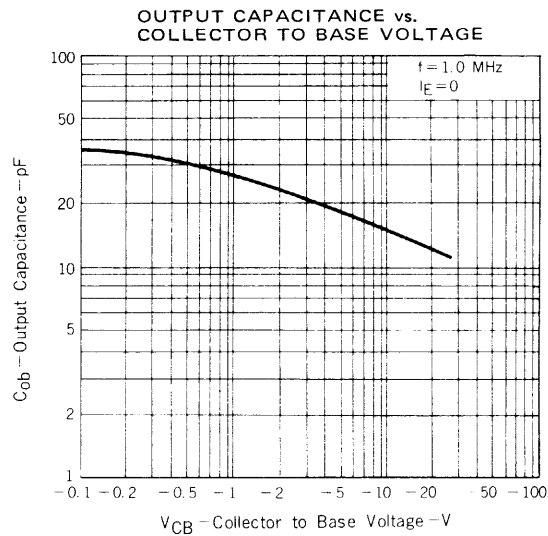
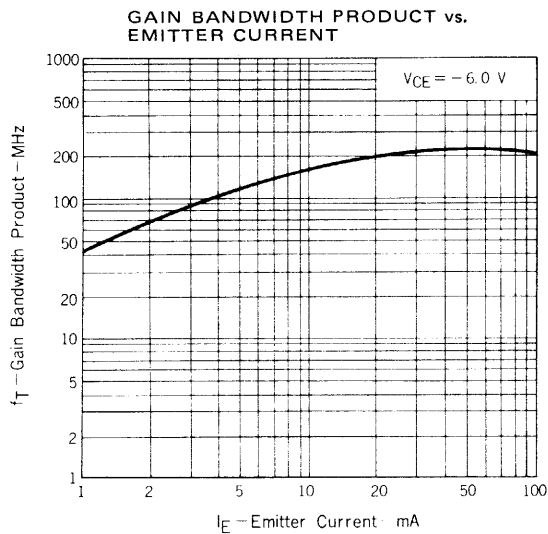
\* Pulsed PW  $\leq 350$   $\mu$ s, Duty Cycle  $\leq 2$  %

**$h_{FE1}$  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 ( $T_a = 25^\circ\text{C}$ )





## **NEC Corporation**

**INTERNATIONAL ELECTRON DEVICES DIV.**

SUMITOMO MITA Building, 37-8,  
Shiba Gochome, Minato-ku, Tokyo 108, Japan

Tel: Tokyo 456-3111

Telex Address: NECTOK J22686

Cable Address: NEC TOKYO

TC-1261B

AUG.-31-84M

Printed in Japan