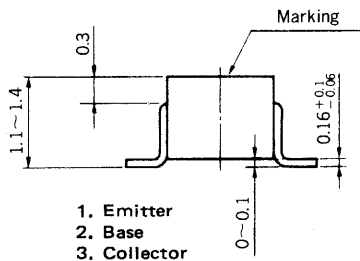
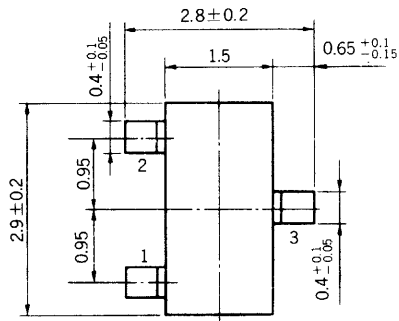


AUDIO FREQUENCY POWER AMPLIFIER
PNP SILICON EPITAXIAL TRANSISTOR
MINI MOLD

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)

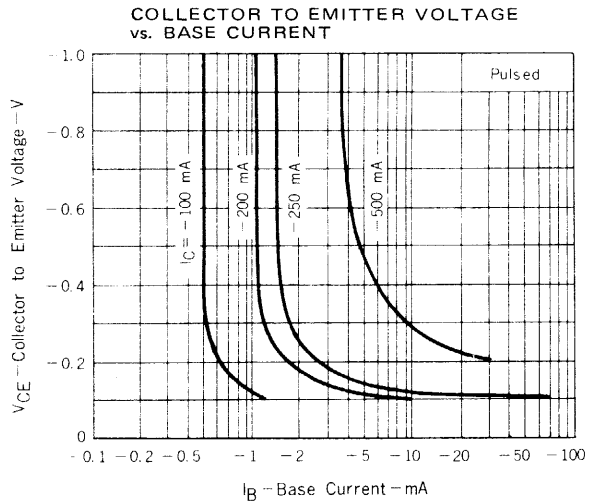
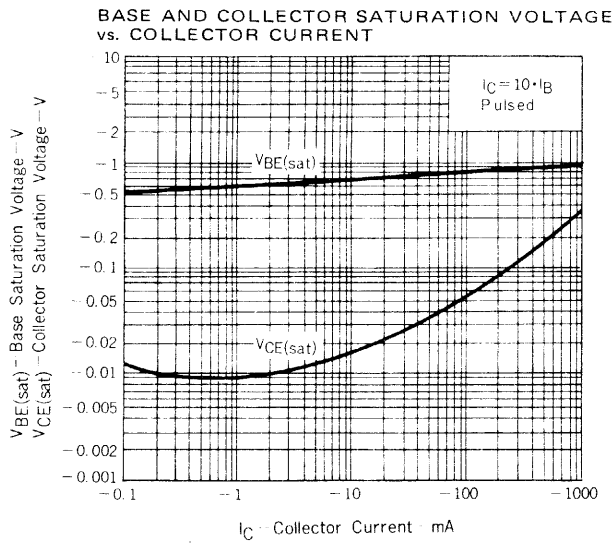
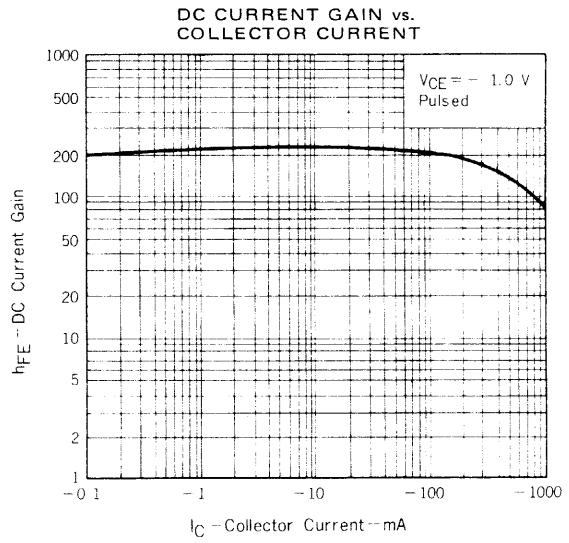
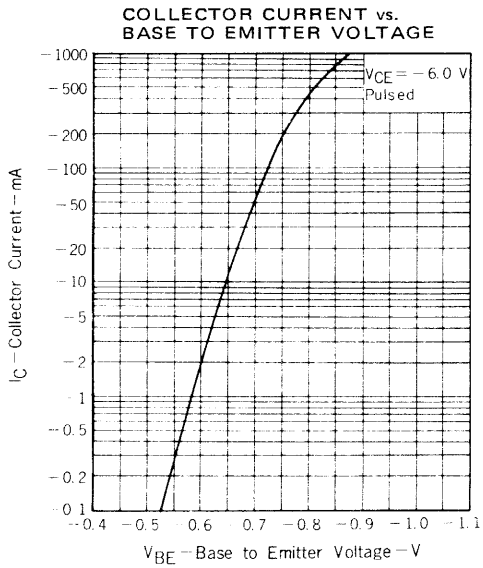
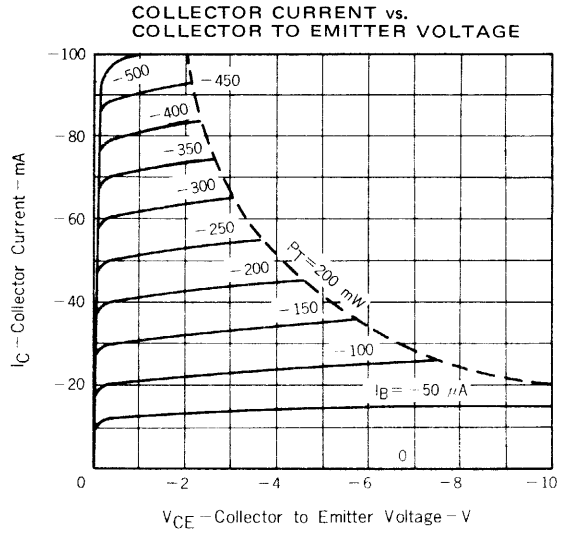
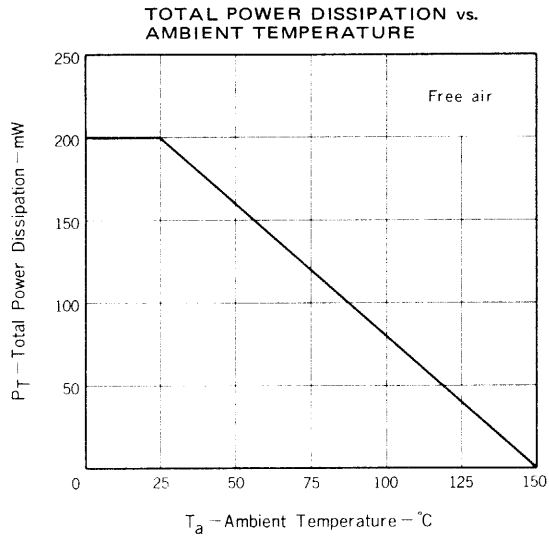
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			-100	nA	$V_{CB} = -30$ V, $I_E = 0$
Emitter Cutoff Current	I_{EBO}			-100	nA	$V_{EB} = -5.0$ V, $I_C = 0$
DC Current Gain	h_{FE1}	110	200	400		$V_{CE} = -1.0$ V, $I_C = -100$ mA *
DC Current Gain	h_{FE2}	50				$V_{CE} = -1.0$ 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 %

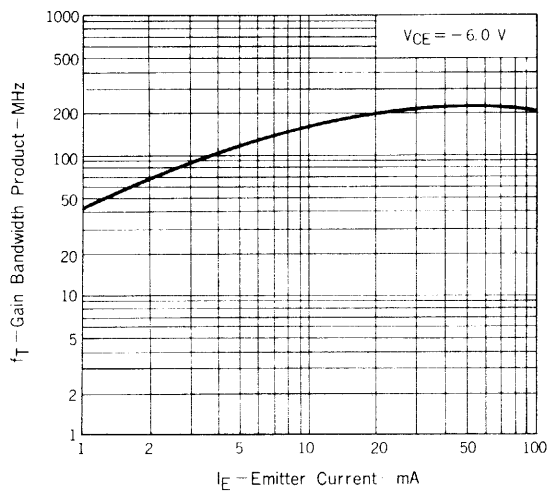
h_{FE1} Classification

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

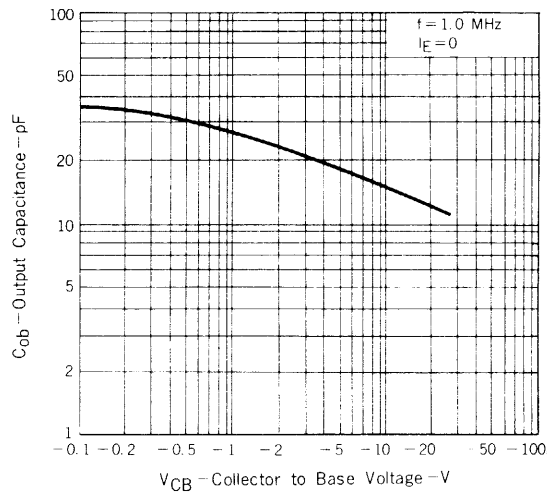
TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE



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