

Silicon Epitaxial Planar Transistor

2SB624

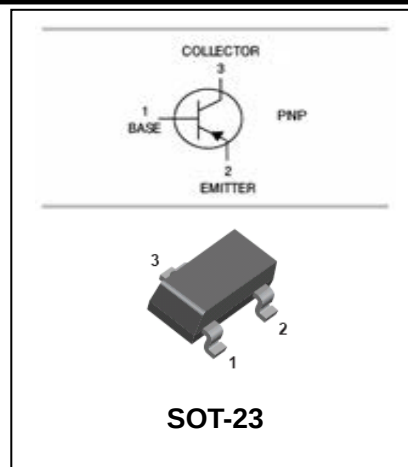
FEATURES

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

HF

APPLICATIONS

- Audio frequency amplifier
- Switching application



ORDERING INFORMATION

Type No.	Marking	Package Code
2SB624	BV1/BV2/BV3/BV4/BV5	SOT-23

MAXIMUM RATING @ $T_a=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-700	mA
P_C	Collector Dissipation	200	mW
T_J, T_{STG}	Junction and Storage Temperature	-55 to +150	$^{\circ}C$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -1V, I_C = -100mA$ $V_{CE} = -1V, I_C = -700mA$	110 50	200	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -700mA, I_B = -70mA$		-0.25	-0.6	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -6V, I_C = -10mA$	-0.6	-0.64	-0.7	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$		160		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -6V, I_E = 0, f = 1MHz$		17		pF

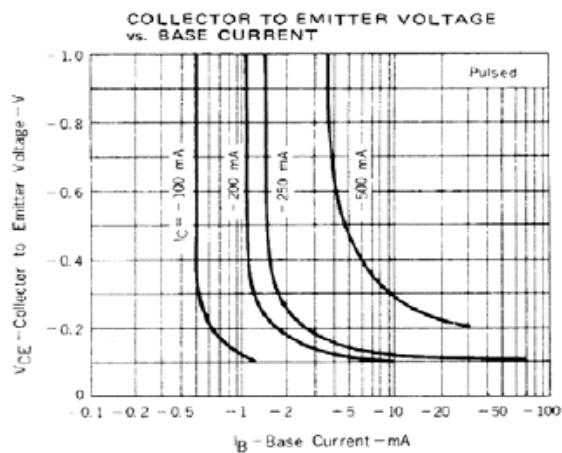
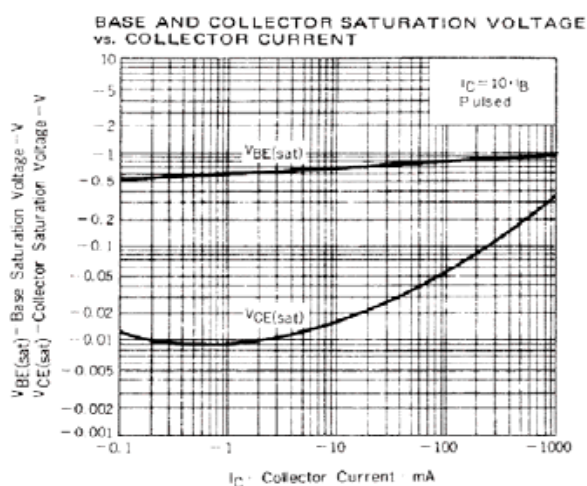
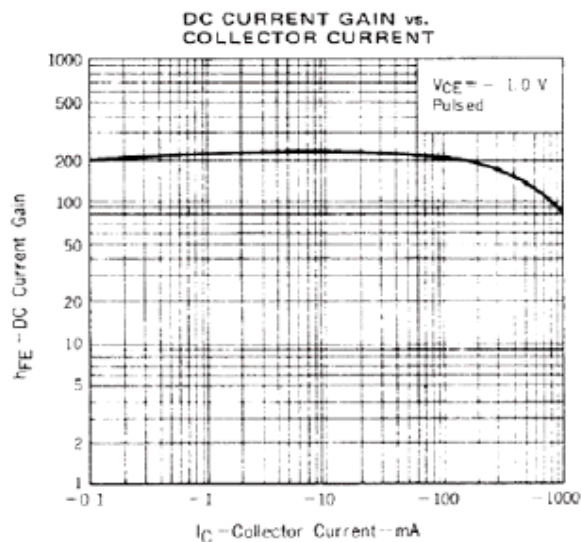
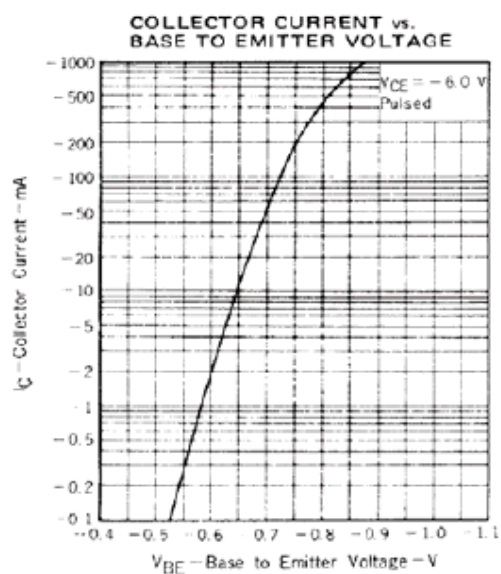
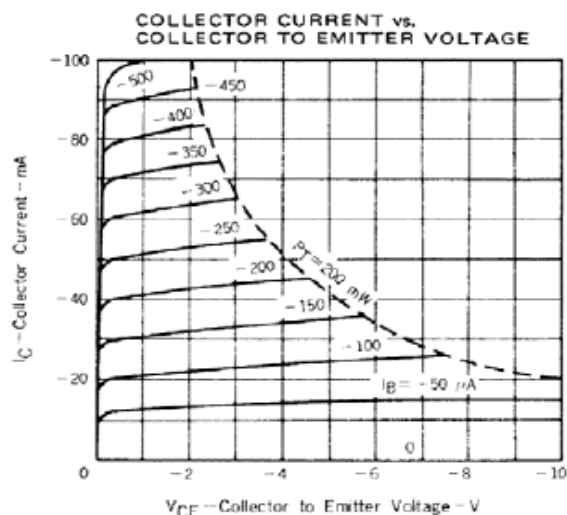
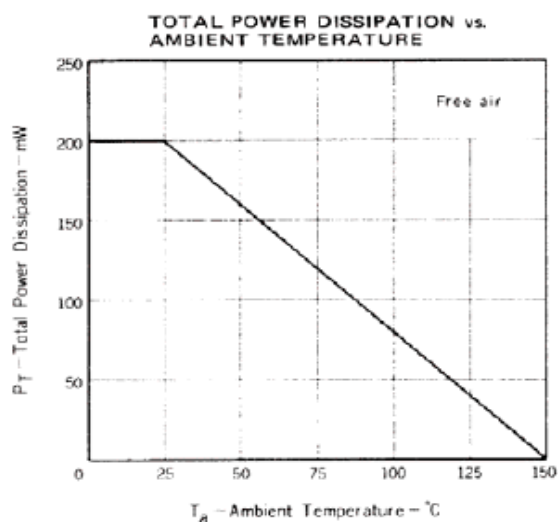
CLASSIFICATION OF $h_{FE(1)}$

Range	110-180	135-220	170-270	200-320	250-400
Marking	BV1	BV2	BV3	BV4	BV5

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



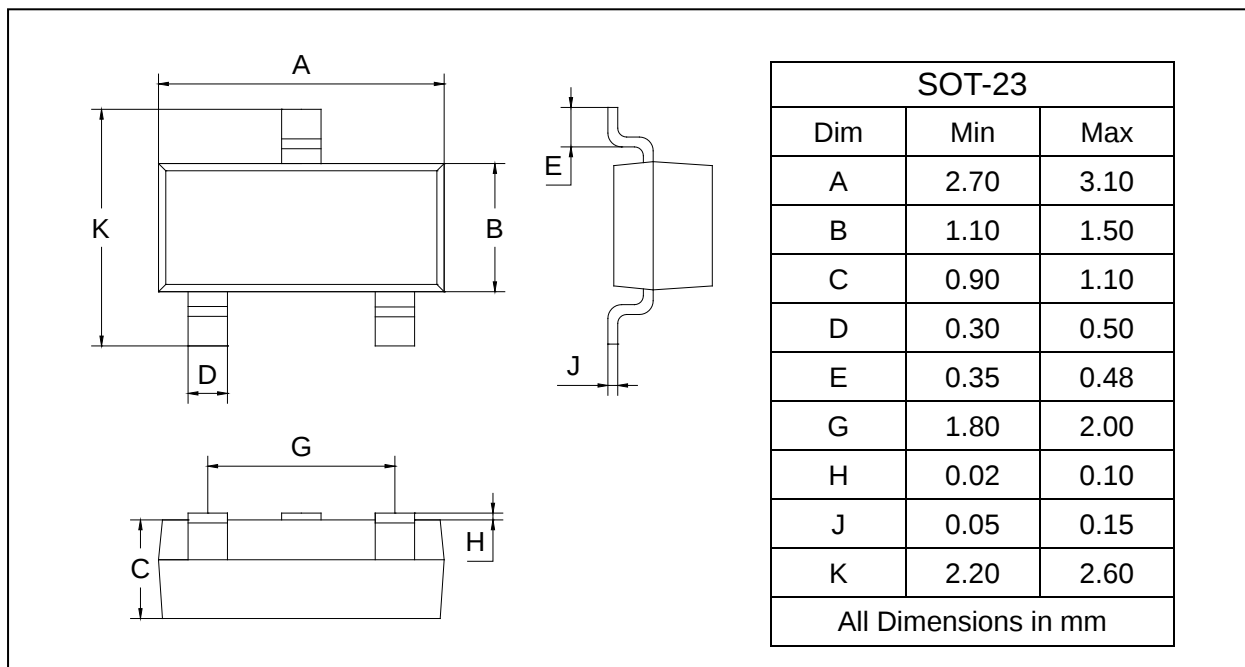
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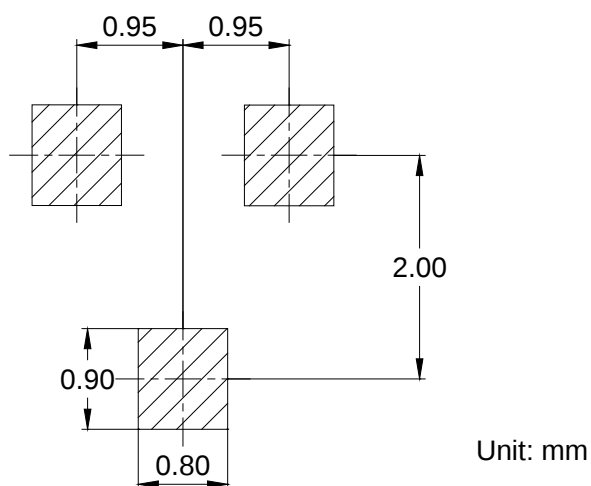
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SB624	SOT-23	3000 pcs / Tape & Reel