

## Silicon Epitaxial Planar Transistor

## 2SB624

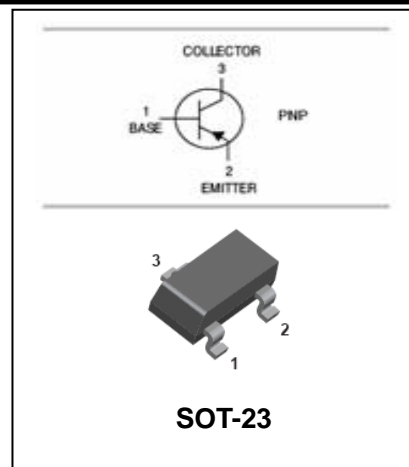
### FEATURES

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



### 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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$			-0.1	$\mu A$
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  $h_{FE(1)}$**

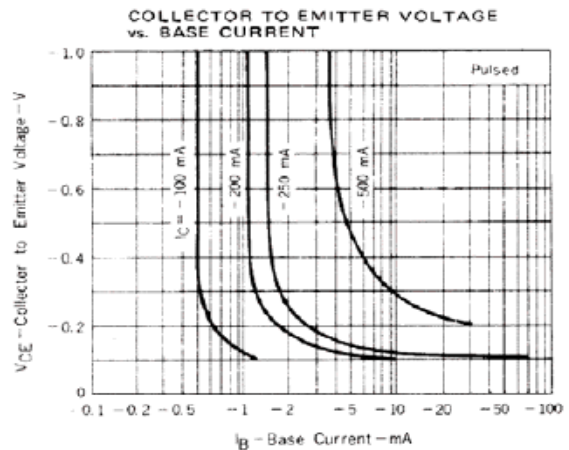
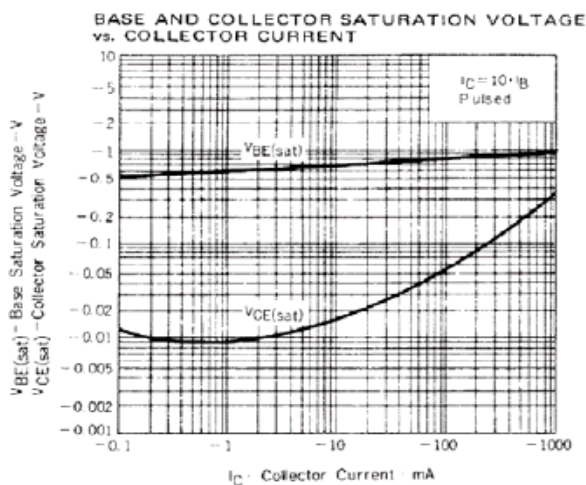
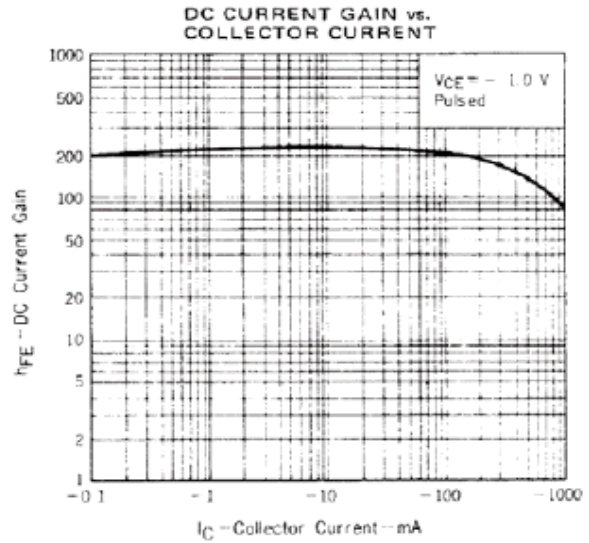
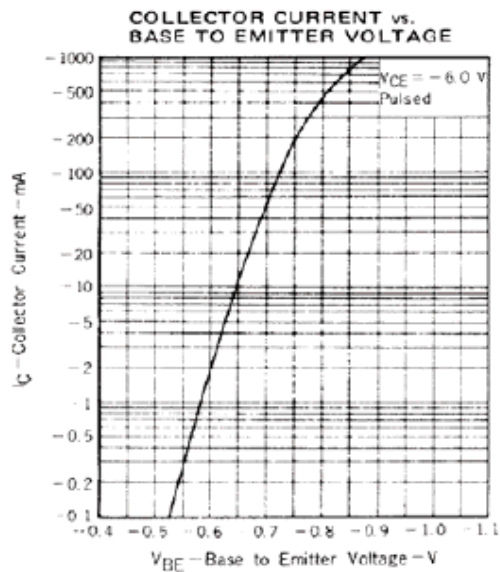
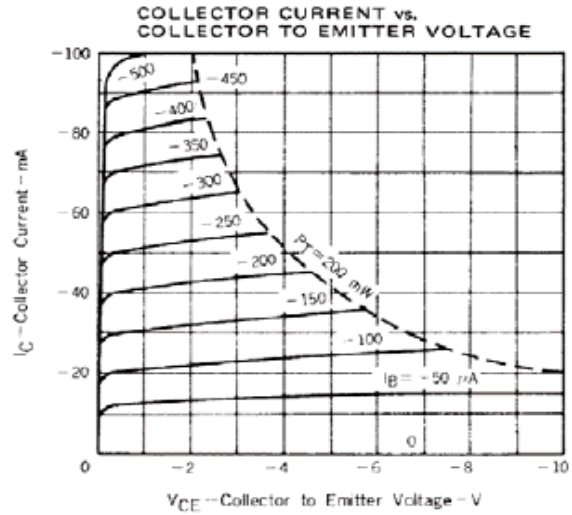
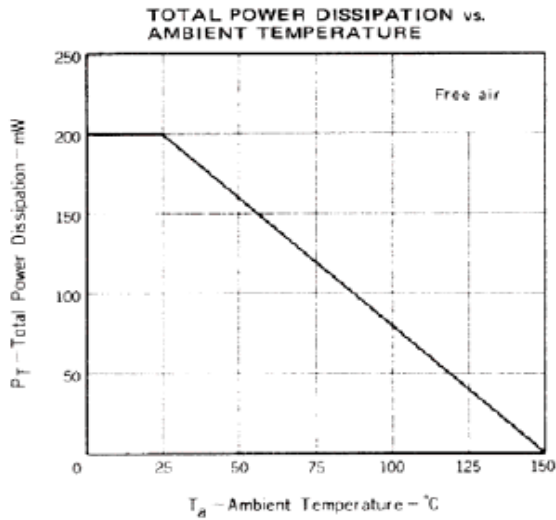
Range	110-180	135-220	170-270	200-320	250-400
Marking	BV1	BV2	BV3	BV4	BV5



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



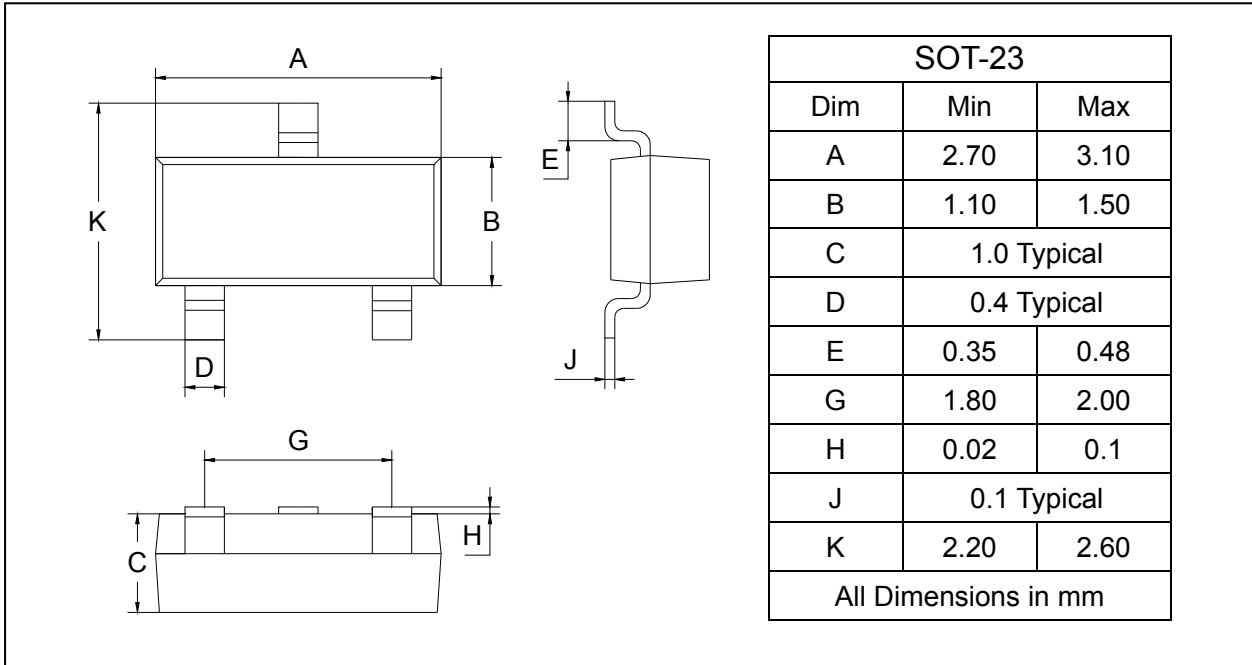
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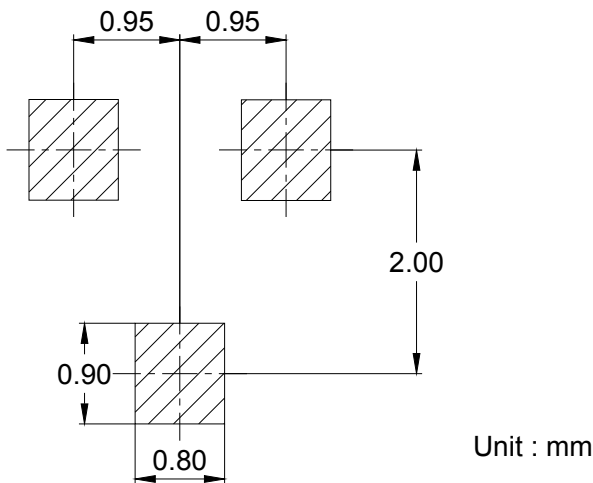
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

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