

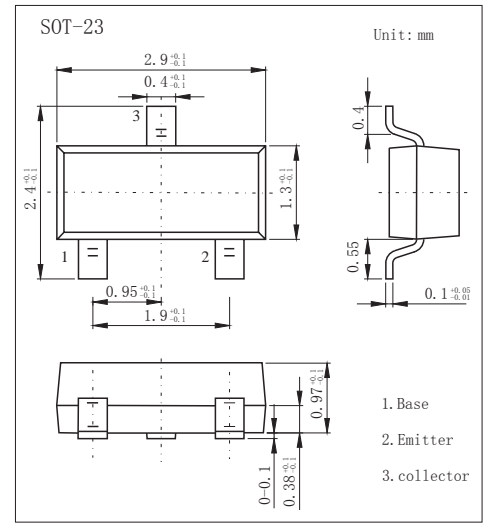
## SOT-23 Plastic-Encapsulate Transistors

### Features

- High DC current gain.  $h_{FE}$ :200 TYP.( $V_{CE}=-1V, I_C=-100mA$ )
- Complimentary to 2SD596.

### MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-30	V
Collector - Emitter Voltage	$V_{CE0}$	-25	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_C$	-700	mA
Collector Power Dissipation	$P_C$	200	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature range	$T_{stg}$	-55 to 150	

### PACKAGE INFORMATION

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu A, I_E = 0$	-30			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1 mA, I_B = 0$	-25			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -30 V, I_E = 0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5 V, I_C = 0$			-100	
Collector-emitter saturation voltage (Note.1)	$V_{CE(sat)}$	$I_C = -700 mA, I_B = -70 mA$			-0.6	V
Base - emitter saturation voltage (Note.1)	$V_{BE(sat)}$	$I_C = -700 mA, I_B = -70 mA$			-1.2	
Base - emitter voltage (Note.1)	$V_{BE}$	$V_{CE} = -6 V, I_C = -10 mA$	-0.6		-0.7	
DC current gain (Note.1)	$h_{FE(1)}$	$V_{CE} = -1 V, I_C = -100 mA$	110		400	
	$h_{FE(2)}$	$V_{CE} = -1 V, I_C = -700 mA$	50			
Collector output capacitance	$C_{ob}$	$V_{CB} = -6 V, I_E = 0, f = 1 MHz$		17		pF
Transition frequency	$f_T$	$V_{CE} = -6 V, I_C = -10 mA$		160		MHz

Note.1:Pulse test : Pulse width  $\leq 350 \mu s$ , Duty Cycle  $\leq 2\%$ .

### Classification of $h_{FE(1)}$

Type	2SB624-BV1	2SB624-BV2	2SB624-BV3	2SB624-BV4	2SB624-BV5
Range	110-180	135-220	170-270	200-320	250-400
Marking	BV1	BV2	BV3	BV4	BV5