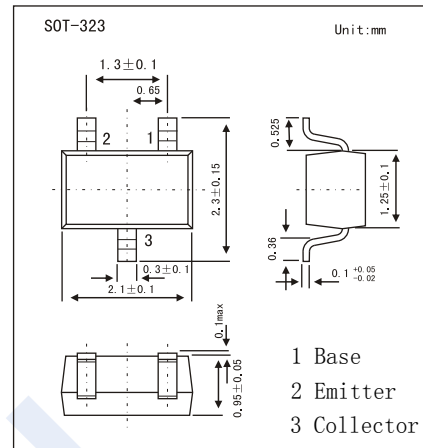


PNP Transistors

2SB1220

■ Features

- High collector to emitter voltage V_{CEO} .
- Low noise voltage NV.
- Complementary to 2SD1821



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-150	V
Collector - Emitter Voltage	V_{CEO}	-150	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-50	mA
Collector Current - Pulse	I_{CP}	-100	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-150			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}$, $I_B = 0$	-150			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -100\text{V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -30 \text{ mA}$, $I_B = -3\text{mA}$			-1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -30 \text{ mA}$, $I_B = -3\text{mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -5\text{V}$, $I_C = -10 \text{ mA}$	130		450	
Noise voltage	NV	$V_{CE} = -10\text{V}$, $I_C = -1\text{mA}$, $G_v = 80\text{dB}$, $R_g = 100\text{k}\Omega$, Function = FLAT		150		mV
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		4		pF
Transition frequency	f_T	$V_{CE} = -10\text{V}$, $I_E = 10 \text{ mA}$, $f = 200\text{MHz}$		200		MHz

■ Classification of h_{fe}

Type	2SB1220-R	2SB1220-S	2SB1220-T
Range	130-220	185-330	260-450
Marking	IR	IS	IT

PNP Transistors

2SB1220

Typical Characteristics

