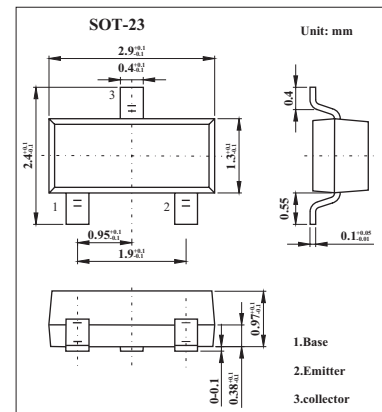


## Silicon PNP Epitaxial Planar Type

## 2SB710A

## ■ Features

- Large collector current  $I_c$ .
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-60	V
Collector-emitter voltage	$V_{CEO}$	-50	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_c$	-0.5	A
Peak collector current	$I_{CP}$	-1	A
Collector power dissipation	$P_c$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	$V_{CBO}$	$I_c = -10 \mu\text{A}, I_E = 0$	-60			V
Collector-emitter voltage	$V_{CEO}$	$I_c = -10 \text{mA}, I_B = 0$	-50			V
Emitter-base voltage	$V_{EBO}$	$I_E = -10 \mu\text{A}, I_c = 0$	-5			V
Collector-base cutoff current	$I_{CBO}$	$V_{CB} = -20 \text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = -10 \text{V}, I_c = -150 \text{mA}$	85		340	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -300 \text{mA}, I_B = -30 \text{mA}$		-0.35	-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c = -300 \text{mA}, I_B = -30 \text{mA}$		-1.1	-1.5	V
Transition frequency	$f_T$	$V_{CB} = -10 \text{V}, I_E = 50 \text{mA}, f = 200 \text{MHz}$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1.0\text{MHz}$		6	15	pF

■  $h_{FE}$  Classification

Marking	DQ	DR	DS
$h_{FE}$	85~170	120~240	170~340