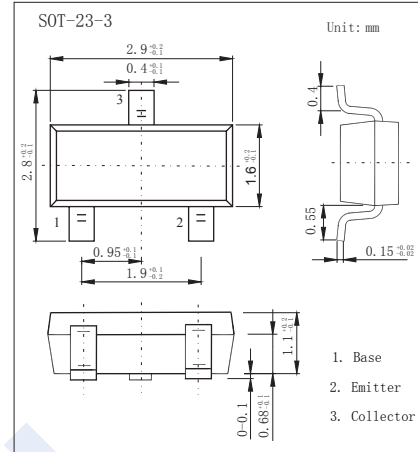


## PNP Transistors

### 2SB710A-HF

#### ■ Features

- Large collector current  $I_c$
- Complimentary to 2SD602A-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-60	V
Collector - Emitter Voltage	$V_{CE0}$	-50	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_c$	-500	mA
Collector current - Pulse	$I_{CP}$	-1	A
Collector Power Dissipation	$P_C$	200	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	$V_{CB0}$	$I_c = -100 \mu\text{A}, I_E = 0$	-60			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_c = -10 \text{ mA}, I_B = 0$	-50			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}, I_c = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -50\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5\text{V}, I_c = 0$			-0.1	
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	
DC current gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_c = -150 \text{ mA}$	85		340	
		$V_{CE} = -10\text{V}, I_c = -500 \text{ mA}$	40			
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1 \text{ MHz}$		6	15	pF
Transition frequency	$f_T$	$V_{CE} = -10\text{V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz

#### ■ Classification of $h_{FE}(1)$

Type	2SB710A-Q-HF	2SB710A-R-HF	2SB710A-S-HF
Range	85-170	120-240	170-340
Marking	DQ <sub>F</sub>	DR <sub>F</sub>	DS <sub>F</sub>

### PNP Transistors

### 2SB710A-HF

■ Typical Characteristics

