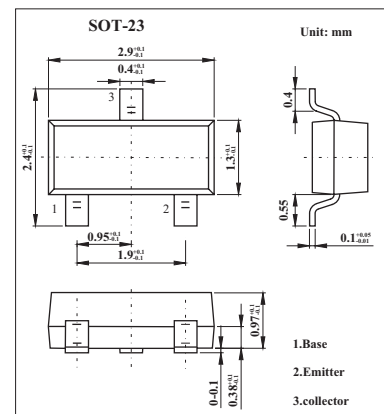


## PNP General Purpose Transistor

## 2PB710A

## ■ Features

- High current (max. 500 mA)
- Low voltage (max. 50 V).

■ 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 (DC)	$I_C$	-500	mA
Peak collector current	$I_{CM}$	-1	A
Peak base current	$I_{BM}$	-200	mA
Total power dissipation $T_{amb} \leq 25^\circ\text{C}; *$	$P_{tot}$	250	mW
Storage temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$
Junction temperature	$T_j$	150	$^\circ\text{C}$
Operating ambient temperature	$T_{amb}$	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W

\* Transistor mounted on an FR4 printed-circuit board.

## 2PB710A

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = -60 V			-10	nA
		I <sub>E</sub> = 0; V <sub>CB</sub> = -60 V; T <sub>j</sub> = 150 °C			-5	μA
Emitter cut-off current	I <sub>EBO</sub>	I <sub>C</sub> = 0; V <sub>EB</sub> = -5 V			-10	nA
DC current gain	2PB710AQ	I <sub>C</sub> = -150 mA; V <sub>CE</sub> = -10 V*	85		170	
	2PB710AR		120		240	
	2PB710AS		170		340	
DC current gain		I <sub>C</sub> = -500 mA; V <sub>CE</sub> = -10 V; *	40			
Collector-emitter saturation voltage	V <sub>CEsat</sub>	I <sub>C</sub> = -300 mA; I <sub>B</sub> = -30 mA *			-600	mV
Base-emitter saturation voltage	V <sub>BEsat</sub>	I <sub>C</sub> = -300 mA; I <sub>B</sub> = -30 mA *			-1.5	V
Collector capacitance	C <sub>c</sub>	I <sub>E</sub> = i <sub>e</sub> = 0; V <sub>CB</sub> = -10 V; f = 1 MHz			15	pF
Transition frequency	2PB710AQ	I <sub>C</sub> = -50 mA; V <sub>CE</sub> = -10 V; f = 100 MHz*	100			MHz
	2PB710AR		120			
	2PB710AS		140			

\*. Pulse test: t<sub>p</sub> ≤ 300 μs; δ ≤ 0.02.

### ■ Marking

Type Number	2PB710AQ	2PB710AR	2PB710AS
Marking	DQ	DR	DS