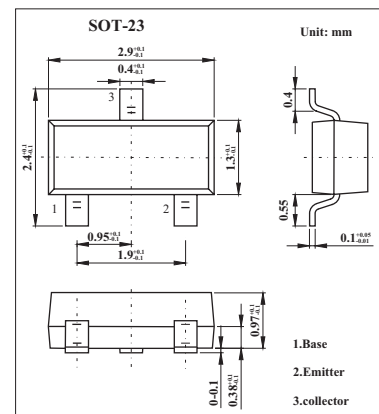


## 2PB709A

### ■ Features

- Low current (max. 100 mA)
- Low voltage (max. 45 V).



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-45	V
Collector-emitter voltage	$V_{CE0}$	-45	V
Emitter-base voltage	$V_{EB0}$	-6	V
Collector current (DC)	$I_C$	-100	mA
Peak collector current	$I_{CM}$	-200	mA
Peak base current	$I_{BM}$	-100	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 PCB.



## 2PB709A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Max	Unit
Collector cut-off current	ICBO	IE = 0; VCB = -45 V		-10	nA
		IE = 0; VCB = -45 V; Tj = 150 °C		-5	µA
Emitter cut-off current	IEBO	IC = 0; VEB = -5 V		-10	nA
DC current gain	2PB709AQ	IC = -2 mA; VCE = -10 V	160	260	
	2PB709AR		210	340	
	2PB709AS		290	460	
Collector-emitter saturation voltage	VCE(sat)	IC = -100 mA; IB = -10 mA *		-500	mV
Collector capacitance	Cc	IE = ie = 0; VCB = -10 V; f = 1 MHz		5	pF
Transition frequency	2PB709AQ	IC = -1 mA; VCE = -10 V; f = 100 MHz	60		MHz
	2PB709AR		70		
	2PB709AS		80		

\* Pulse test: tp ≤ 300 µs; δ ≤ 0.02.

■ hFE Classification

TYPE	2PB709AQ	2PB709AR	2PB709AS
Marking	BQ	BR	BS