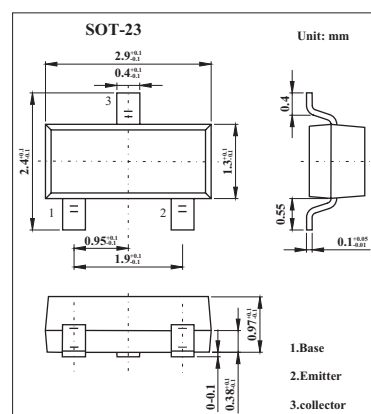


PNP General Purpose Transistor

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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Max	Unit
Collector cut-off current	I _{CBO}	I _E = 0; V _{CB} = -45 V		-10	nA
		I _E = 0; V _{CB} = -45 V; T _j = 150 °C		-5	μA
Emitter cut-off current	I _{EBO}	I _C = 0; V _{EB} = -5 V		-10	nA
DC current gain	2PB709AQ	I _C = -2 mA; V _{CE} = -10 V	160	260	
	2PB709AR		210	340	
	2PB709AS		290	460	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -100 mA; I _B = -10 mA *		-500	mV
Collector capacitance	C _c	I _E = I _E = 0; V _{CB} = -10 V; f = 1 MHz		5	pF
Transition frequency	2PB709AQ	I _C = -1 mA; V _{CE} = -10 V; f = 100 MHz	60		MHz
	2PB709AR		70		
	2PB709AS		80		

* Pulse test: $t_p \leq 300 \mu\text{s}$; $\delta \leq 0.02$.

■ hFE Classification

TYPE	2PB709AQ	2PB709AR	2PB709AS
Marking	BQ	BR	BS