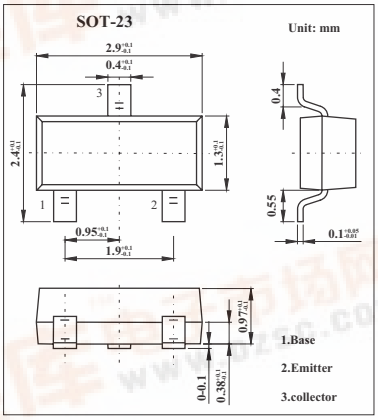
PNP General Purpose Transistor

2PB709A



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-45	V
Collector-emitter voltage	V_{CEO}	-45	V
Emitter-base voltage	V_{EBO}	-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($T_{amb} \leqslant 25℃$; *)	P_{tot}	250	mW
Storage temperature	T_{stg}	-65 to +150	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	T_{amb}	-65 to +150	℃
Thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$	500	K/W

* Transistor mounted on an FR4 PCB.

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■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	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 ℃		-5	μA
Emitter cut-off current		I_{EBO}	I_C = 0; V_{EB} = -5 V		-10	nA
DC current gain	2PB709AQ	h_{FE}	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	f_T	I_C = -1 mA; V_{CE} = -10 V; f = 100 MHz	60		MHz
	2PB709AR			70		
	2PB709AS			80		

* Pulse test: tp ⩽ 300 μs; δ⩽ 0.02.

■ h_{FE} Classification

TYPE	2PB709AQ	2PB709AR	2PB709AS
Marking	BQ	BR	BS