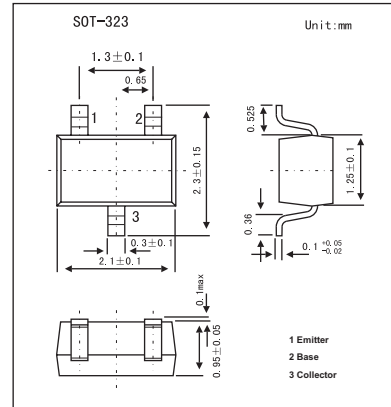


## PNP General Purpose Transistor

### 2PB709AW



#### ■ Features

- High collector current (max. 100 mA).
- Low collector-emitter saturation voltage (max. 500 mV).

#### ■ 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	$I_C$	-100	mA
Peak collector current	$I_{CM}$	-200	mA
Total power dissipation	$P_{tot}$	200	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	$R_{th\ j-a}$	625	K/W

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{cB0}$	$I_E = 0; V_{CB} = -45\text{ V}$			-10	nA
		$I_E = 0; V_{CB} = -45\text{ V}; T_j = 150\text{ }^\circ\text{C}$			-5	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$I_C = 0; V_{EB} = -5\text{ V}$			-10	nA
DC current gain 2PB709AQW 2PB709ARW 2PB709ASW	$h_{FE}$	$I_C = -2\text{ mA}; V_{CE} = -10\text{ V}$	160 210 290	260 340 460		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}; I_B = -10\text{ mA}; *$			-500	mV
Collector capacitance	$C_c$	$I_E = I_C = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$			5	pF
Transition frequency 2PB709AQW 2PB709ARW 2PB709ASW	$f_T$	$I_C = -1\text{ mA}; V_{CE} = -10\text{ V}; f = 100\text{ MHz}$	60 70 80			MHz

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

#### ■ $h_{FE}$ Classification

TYPE	2PB709AQW	2PB709ARW	2PB709ASW
Marking	N5	N7	N9