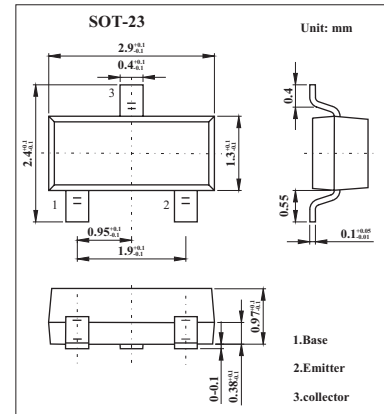


## PNP Silicon Epitaxial Transistor

## 2SA811A

## ■ Features

- High DC current gain.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-120	V
Collector-emitter voltage	$V_{CEO}$	-120	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-50	mA
Total power dissipation	$P_T$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -120\text{V}, I_E = 0$			-50	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0$			-50	nA
DC current gain *	hFE	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	135	500	900	
		$V_{CE} = -6\text{V}, I_C = -0.1\text{mA}$	100	500		
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$		-0.09	-0.30	V
Base-emitter voltage *	$V_{BE}$	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	-0.55	-0.61	-0.65	V
Gain bandwidth product	$f_T$	$V_{CE} = -6\text{V}, I_E = 1\text{mA}$	50	90		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -30\text{V}, I_E = 0, f = 1.0\text{MHz}$		2.0	3.0	pF

\* Pulse test:  $t_p \leq 350 \mu\text{s}; d \leq 0.02$ .

## ■ hFE Classification

Marking	C15	C16	C17	C18
hFE	135~270	200~400	300~600	450~900