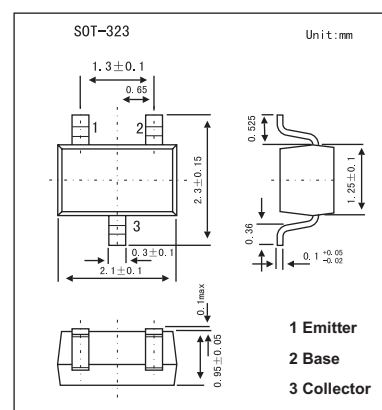


## PNP Silicon Epitaxial Transistor

## 2SA1612

## ■ Features

- High DC current gain

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CB0}$	-120	V
Collector to emitter voltage	$V_{CEO}$	-120	V
Emitter to base voltage	$V_{EB0}$	-5	V
Collector current (DC)	$I_C$	-50	mA
Total power dissipation	$P_T$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-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	$h_{FE}$	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	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	-0.3	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	3	pF

\*.  $PW \leq 350\mu\text{s}, \text{duty cycle} \leq 2\%$

■  $h_{FE}$  Classification

Marking	C15	C16	C17	C18
$h_{FE}$	135~270	200~400	300~600	450~900