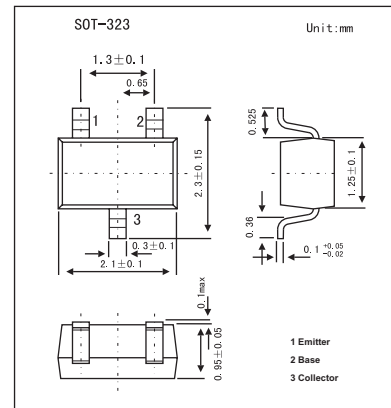


## Silicon PNP Epitaxial Planar Type

## 2SA1748

## ■ Features

- High transition frequency  $f_t$ .
- Small collector output capacitance  $C_{ob}$ .

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-50	V
Collector-emitter voltage	$V_{CE0}$	-50	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current	$I_C$	-50	mA
Collector power dissipation	$P_C$	150	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-base voltage	$V_{CB0}$	$I_C = -10\ \mu\text{A}$ , $I_E = 0$	-50			V
Collector-emitter voltage	$V_{CE0}$	$I_C = -1\ \text{mA}$ , $I_B = 0$	-50			V
Emitter-base voltage	$V_{EB0}$	$I_E = -10\ \mu\text{A}$ , $I_C = 0$	-5			V
Collector-base cutoff current	$I_{CB0}$	$V_{CB} = -10\ \text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter-base cutoff current	$I_{EB0}$	$V_{CE} = -10\ \text{V}$ , $I_B = 0$			-100	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = -10\ \text{V}$ , $I_C = -2\ \text{mA}$	200		500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\ \text{mA}$ , $I_B = -1\ \text{mA}$		-0.1	-0.3	V
Transition frequency	$f_t$	$V_{CB} = -10\ \text{V}$ , $I_E = 2\ \text{mA}$ , $f = 200\ \text{MHz}$		250		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\ \text{V}$ , $I_E = 0$ , $f = 1\ \text{MHz}$		1.5		pF

■  $h_{FE}$  Classification

Marking	AL	
	Q	R
$h_{FE}$	200~400	250~500