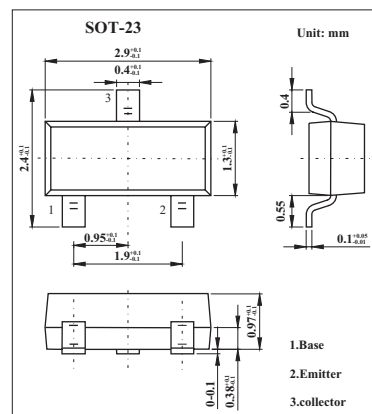


## Silicon NPN Epitaxial Planar Type

## 2SC3125



### ■ Features

- Good Linearity of  $f_T$

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	30	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	4	V
Collector current	$I_C$	50	mA
Base current	$I_B$	25	mA
Collector Power Dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature Range	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 30\text{V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 3\text{V}, I_C = 0$			1.0	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	25			V
DC current gain	$h_{FE}$	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	20	70	200	
Saturation Voltage Collector-Emitter	$V_{CE(sat)}$	$I_C = 15\text{mA}, I_B = 1.5\text{mA}$			0.2	V
Saturation Voltage Baser-Emitter	$V_{BE(sat)}$				1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	250	600		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CC} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		1.1	1.6	pF
Collector-BaseTime Constant	$C_{c,rb}$	$V_{CB} = 10\text{V}, I_C = 1\text{mA}, f = 30\text{MHz}$			25	ps

### ■ Marking

Marking	HH