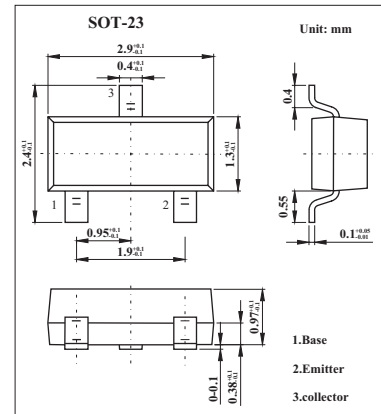


## Silicon PNP Epitaxial Planar Type

## 2SC2405

## ■ Features

- Low noise voltage NV.
- High forward current transfer ratio hFE.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	35	V
Collector-emitter voltage	$V_{CE0}$	35	V
Emitter-base voltage	$V_{EB0}$	5	V
Collector current	$I_C$	50	mA
Peak collector current	$I_{CP}$	100	mA
Collector power dissipation	$P_C$	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-base voltage	$V_{CB0}$	$I_C = 10\ \mu\text{A}, I_E = 0$	35			V
Collector-emitter voltage	$V_{CE0}$	$I_C = 2\ \text{mA}, I_B = 0$	35			V
Emitter-base voltage	$V_{EB0}$	$I_E = 10\ \mu\text{A}, I_C = 0$	5			V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 1\ \text{V}, I_C = 100\ \text{mA}$		0.7	1.0	V
Collector-base cutoff current	$I_{CB0}$	$V_{CB} = 10\ \text{V}, I_E = 0$			0.1	$\mu\text{A}$
Collector-emitter cutoff current	$I_{CE0}$	$V_{CE} = 10\ \text{V}, I_B = 0$			1	$\mu\text{A}$
Forward current transfer ratio	hFE	$V_{CE} = 5\ \text{V}, I_C = 2\ \text{mA}$	180		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\ \text{mA}, I_B = -10\ \text{mA}$			0.6	V
Transition frequency	f <sub>T</sub>	$V_{CB} = 5\ \text{V}, I_E = -2\ \text{mA}, f = 200\ \text{MHz}$		200		MHz
Noise voltage	NV	$V_{CE} = 10\ \text{V}, I_C = 1\ \text{mA}, G_v = 80\ \text{dB}$ $R_g = 100\ \text{k}\Omega, F_{\text{function}} = \text{FLAT}$		110		mV

## ■ hFE Classification

Marking	SR	SS	ST
hFE	180~360	260~520	360~700