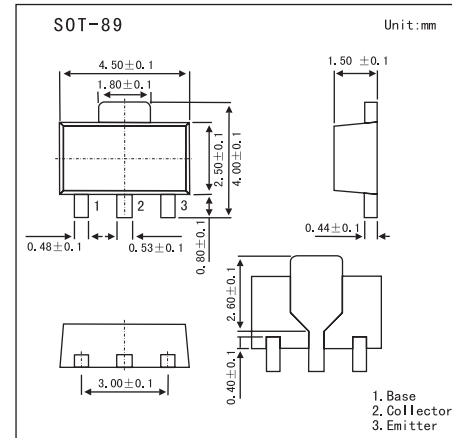


## Silicon NPN Epitaxial Planar Type

## 2SC4543



## ■ Features

- High transition frequency  $f_T$
- Small collector output capacitance  $C_{ob}$
- Wide current range.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	110	V
Collector-emitter voltage	$V_{CER}^*$	100	V
Collector-emitter voltage	$V_{CEO}$	50	V
Emitter-base voltage	$V_{EBO}$	3.5	V
Peak collector current	$I_{CP}$	300	mA
Collector current	$I_C$	150	mA
Collector power dissipation	$P_C$	1.0	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $R_{EB}=1.2\text{K}\Omega$ ■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CEO}$	$V_{CE} = 35\text{ V}, I_B = 0$			10	$\mu\text{A}$
Collector-base voltage	$V_{CB0}$	$I_C = 100\ \mu\text{A}, I_E = 0$	110			V
Collector-emitter voltage	$V_{CER}$	$I_C = 500\ \mu\text{A}, R_{BE} = 470\ \Omega$	100			V
Collector-emitter voltage	$V_{CEO}$	$I_C = 1\ \text{mA}, I_B = 0$	50			V
Emitter-base voltage	$V_{EBO}$	$I_E = 100\ \mu\text{A}, I_C = 0$	3.5			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 5\ \text{V}, I_C = 100\ \text{mA}$	20			?
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 150\ \text{mA}, I_B = 15\ \text{mA}$			0.5	V
Transition frequency	$f_{T1}$	$V_{CB} = 10\ \text{V}, I_E = -10\ \text{mA}, f = 200\ \text{MHz}$		300		MHz
	$f_{T2}$	$V_{CB} = 10\ \text{V}, I_E = -110\ \text{mA}, f = 200\ \text{MHz}$		350		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 30\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		3		pF

\*  $R_{EB}=1.2\text{K}\Omega$ 

## ■ Marking

Marking	1F
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