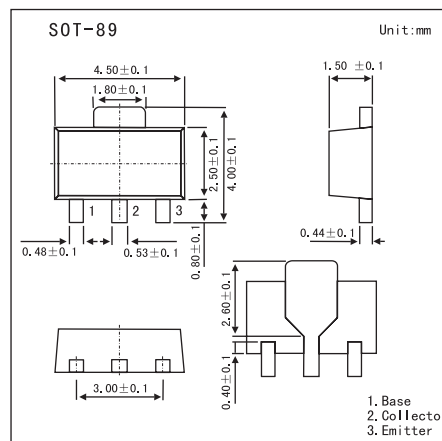


Silicon NPN Epitaxial Planar Type

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_{CBO}	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	μA
Collector-base voltage	V_{CBO}	$I_C = 100\ \mu\text{A}, I_E = 0$	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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