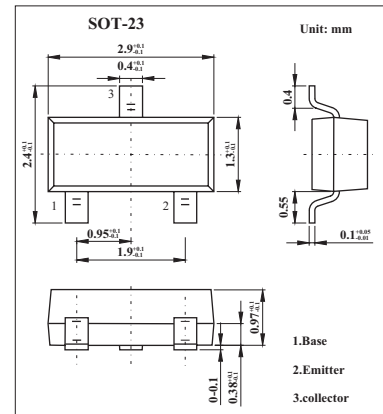


## NPN Silicon Epitaxial Transistor

## 2SC3545

## ■ Features

- High Gain Bandwidth Product;  $f_T = 2\,000$  MHz TYP.
- Low Collector to Base Time Constant;  $C_c r_{bb} = 4$  ps TYP.
- Low Feedback Capacitance;  $C_{re} = 0.48$  pF TYP.

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	30	V
Collector to Emitter Voltage	$V_{CEO}$	15	V
Emitter to Base Voltage	$V_{EBO}$	3.0	V
Collector Current	$I_C$	50	mA
Total Power Dissipation	$P_T$	150	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-65 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 12\text{ V}, I_E = 0$			0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 10\text{ V}, I_C = 5.0\text{ mA}$	50	100	250	
Collector Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{ mA}, I_B = 1.0\text{ mA}$			0.5	V
Gain Bandwidth Product	$f_T$	$V_{CE} = 10\text{ V}, I_E = -5.0\text{ mA}$	1.3	2.0		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1.0\text{ MHz}$		0.48	1.0	pF
Collector to Base Time Constant	$C_c r_{bb}$	$V_{CE} = 10\text{ V}, I_E = -5.0\text{ mA}, f = 31.9\text{ MHz}$		4	1.0	ps

■  $h_{FE}$  Classification

Marking	T42	T43	T44
Rank	M/P	L/Q	K/R
$h_{FE}$	50~100	70~140	120~250