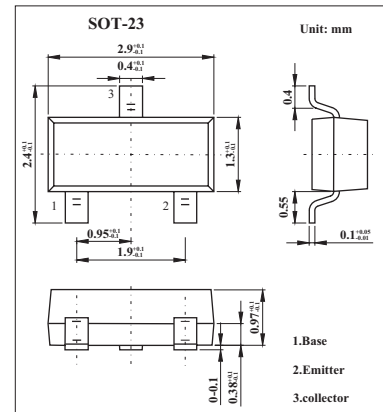


NPN Silicon Epitaxial Transistor

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	μA
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