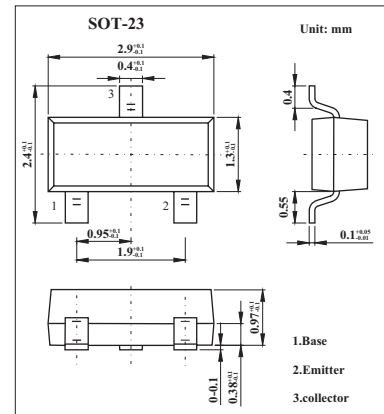


## NPN Silicon Epitaxial Transistor

## 2SC3585

## ■ Features

- NF 1.8 dB TYP. @f = 2.0 GHz
- Ga 9 dB TYP. @f = 2.0 GHz



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V <sub>CB0</sub>	20	V
Collector to emitter voltage	V <sub>CEO</sub>	10	V
Emitter to base voltage	V <sub>EB0</sub>	1.5	V
Collector current	I <sub>c</sub>	35	mA
Total power dissipation	P <sub>T</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>cBO</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0			1.0	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 1V, I <sub>C</sub> = 0			1.0	μA
DC current gain	h <sub>FE</sub> *1	V <sub>CE</sub> = 6 V, I <sub>c</sub> = 10 mA	50	100	250	
Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = 6 V, I <sub>c</sub> = 10 mA		10		GHz
Feed-Back Capacitance	C <sub>re</sub> *2	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1.0 MHz		0.3	0.8	pF
Insertion Power Gain	S <sub>21e</sub>   <sup>2</sup>	V <sub>CE</sub> = 6 V, I <sub>c</sub> = 10 mA, f = 2.0 GHz	6.0	8.0		dB
Maximum Available Gain	MAG	V <sub>CE</sub> = 6 V, I <sub>c</sub> = 10 mA, f = 2.0 GHz		10		dB
Noise Figure	NF	V <sub>CE</sub> = 6 V, I <sub>c</sub> = 5 mA, f = 2.0 GHz		1.8	3.0	dB

\*1. Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

\*2. The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

## ■ hFE Classification

Marking	R43	R44	R45
Rank	R43/Q	R44/R	R45/S
hFE	50~100	80~160	125~250